DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-CM-DATA-CSAR-V5.3

2.   TITLE: CONFIGURATION STATUS ACCOUNTING REPORT

3.   DESCRIPTION AND INTENDED USE

3.1   The Configuration Status Accounting (CSA) system enables the efficient and effective execution of Configuration Management (CM) functions (ie, CM planning, configuration identification, control of configuration changes and configuration verification and audit). The CSA Report (CSAR), produced from the Contractor's CSA system, provides detailed information to describe the functional requirements and physical characteristics of Configuration Items (CIs), the status of changes to CIs, their associated documentation, and the actual configuration of individual CIs.

3.2   The Contractor uses the CSAR to inform the Commonwealth of the current status of a product (ie, a complete system or CI) and its Product Configuration Information, associated Configuration Baselines, and changes to that product throughout the period of the Contract.

3.3   The Commonwealth uses CSAR information to:

a.   understand the current configuration of a product, its Product Configuration Information, and relationship to Configuration Baselines (including system-level baselines), and

b.   inform Commonwealth CM activities related to that product throughout its lifecycle.

4.   INTER-RELATIONSHIPS

4.1   The CSAR is subordinate to the following data items, where these data items are required under the Contract:

a.   Configuration Management Plan (CMP);

b.   Systems Engineering Management Plan (SEMP); and

c.   Support Services Management Plan (SSMP).

4.2   The CSAR inter-relates with the following data items, where these data items are required under the Contract:

a.   all data items derived from the Master Technical Data Index (MTDI) (eg, Support System Technical Data List (SSTDL));

b.   Engineering Change Proposal (ECP);

c.   Application for a Deviation (AFD); and

d.   all data items that form part of a Baseline.

4.3   The CSAR also inter-relates with the Technical Data and Software Rights (TDSR) Schedule.

5.   APPLICABLE DOCUMENTS

5.1   The following document forms a part of this DID to the extent specified herein:

ANSI/EIA-649-C   *National Consensus Standard for Configuration Management*

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The CSAR shall be provided in soft copy format as structured data (eg, one or more databases, spreadsheets or other structured data format) that enables CASR content to be accessed, queried, read, printed and used to generate soft copy tabulated text reports.

6.1.3   Except where the soft copy data file is compatible with a standard Software application defined elsewhere in the Contract, or otherwise agreed in advance and in writing by the Commonwealth Representative, the CSAR shall be accompanied by any software and Technical Data required to enable the functions identified in clause 6.1.2.

6.1.4   ANSI/EIA-649-C provides guidance in relation to Commonwealth expectations for CSA reporting.

6.2   Specific Content

6.2.1   General

6.2.1.1   The CSAR shall be tailored by the governing plan for CM (eg, the Approved CMP) to include the sub-reports and information applicable to the phase of the lifecycle, the scope of the program, the Contract, and the complexity / grade of CM for the Materiel System.

6.2.1.2   The CSAR shall provide accurate, current information, relevant to the end item / CI, derived from the CSA system that is used to store and manage the Product Configuration Information.

6.2.1.3   Where the Contractor has delivered more than one configuration of a CI, the CSAR shall identify all currently approved documentation and the identification numbers for each configuration.

6.2.2   Indentured Item List

6.2.2.1   For each CI, the CSAR shall include, or be able to generate, an Indentured Item List that illustrates the breakdown structure of subordinate CIs, parts, assemblies, sub-assemblies and Software, such that the relationships (eg, where used, next higher assembly) within the product breakdown structure can be clearly understood.

6.2.2.2   The Indentured Item List shall, for each item in the product breakdown structure, include:

    a.   the configuration identifier / product identifier / Unique Item Identifier (UII);

    b.   the nature of the CI (ie, system, hardware, software);

    c.   the manufacturer's Enterprise Identifier (EID) (eg, NATO Commercial and Government Entity (NCAGE/CAGE) code);

    d.   the manufacturer's reference number / part number for the item;

    e.   an Effectivity identifier, such as a version number, useable on code or other, used to designate that a CI is useable on one or more higher-level CIs or end items; and

    f.   the name of the CI, part, component, assembly or Software item, as applicable.

6.2.2.3   The product hierarchy in the Indentured Item List shall be described to a level of detail that provides the Commonwealth with sufficient understanding of the evolving solution and to meet life cycle support concepts, supportability and other goals under the Contract.

6.2.3   Baseline Definitions

6.2.3.1   For each CI, the CSAR shall list the Product Configuration Information associated with the specific baselines relevant to that CI (ie, Functional Baseline (FBL), Product Baseline (PBL), interim product baseline, and other baselines as may be required under the Contract).

6.2.3.2   The Baseline Reports shall include:

    a.   for each CI:

        (i)   configuration identifier / product identifier / UII, including version numbers and any special identifiers / usable on codes used to distinguish between parts, assemblies, and software used in the product; and

        (ii)   the respective Configuration Control Authorities (CCA) and their EID; and

    b.   for each related configuration document:

       (i)   document title;

       (ii)   document number / identifier;

       (iii)   issue or version number and issue date, as applicable; and

       (iv)   the document type and, if applicable, sub-type.

6.2.3.3 **Functional Baseline Report**. The CSAR shall include, or be able to generate, Functional Baseline Reports that list the configuration documentation used to define the FBL for each CI including:

    a.   requirements specifications (functional, interoperability and interface characteristics and design constraints);

    b.   external interface definition documentation; and

    c.   agreed Verification documentation required to demonstrate the CI's characteristics.

6.2.3.4 **Product Baseline Report**. The CSAR shall include, or be able to generate, Product Baseline Reports that list the configuration documentation or other information artefacts used to define the PBL for each CI, and which include the following types of documentation:

    a.   specifications for the system and subordinate CIs, including both hardware and software CIs;

    b.   interface control documents;

    c.   engineering and manufacturing drawings and associated lists (eg, bill of materials, wiring lists, assembly drawings, item quantities);

    d.   design documentation (including, as applicable, software and firmware source code, and system, hardware, software and firmware design documentation);

    e.   computer aided design, simulation and modelling files;

    f.   Verification and Validation plans, procedures and reports and Verification Cross Reference Matrices (VCRMs);

    g.   audit reports, certifications and associated action items;

    h.   ECPs / Engineering Change Orders (ECOs), and Requests for Variance (RFVs)[1];

    i.   related Contract Change Proposals (CCPs);

    j.   operation and maintenance manuals;

    k.   recommended spares and support and test equipment; and

    l.   associated Training materials.

6.2.3.5 Configuration documentation for the Product Baseline Report shall be identified to a level of detail commensurate with the expected Defence activities and support strategy for the product.

6.2.4 **Master Document Index**

6.2.4.1 The CSAR shall include a Master Document Index for each CI (including end items) delivered for Acceptance (as specific or user-selectable filters / views), which includes:

    a.   a list of all subordinate CIs, including:

       (i)   the configuration identifier / product identifier / UII;

       (ii)   their respective CCA and associated EID; and

       (iii)   their allocated grades of CM;

    b.   an index of technical documents, including:

       (i)   specifications, interface control documents, drawings and design documentation;

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[1] Note that an Application for a Deviation under the Contract may result in one or more RFVs being required for CM purposes.

        (ii)   logistics support documents including technical manuals and handbooks; and

        (iii)   technical manuals and handbooks;

c.   the ECP / ECO register;

d.   the RFV register (including the 'return to standard' status and due date);

e.   the Defect reports; and

f.   a list of open action items from the relevant CI audits.

6.2.5   Documents Report

6.2.5.1   The CSAR shall include a Documents Report that, for each configuration document in the CSA system, includes:

a.   document number or identifier;

b.   document full title;

c.   document revision status (eg, draft, final);

d.   issue or version number and issue date;

e.   document type (eg, specification, drawing, source code) and, as applicable, sub-type (eg, detail assembly drawing, specification control drawing, wiring list);

f.   other specific attributes that are relevant to the type of artefact (eg, drawing sizes and number of sheets for a drawing);

g.   document media (if held externally);

h.   reference to the applicable CI;

i.   CDRL reference, if applicable;

j.   the Current Document Control Authority (ie, the organisation that is responsible for the document content and the only authority that can effect changes to the document), and associated EID;

k.   author / source organisation;

l.   a reference to the TDSR Schedule to define any limitation of rights for document distribution and use (eg, associated with Intellectual Property and International Traffic in Arms Regulations); and

m.   identification of associated ECOs.

6.2.6   Build Standard Report

6.2.6.1   The CSAR shall include a Build Standard Report that documents the build standards for CIs, and includes:

a.   equipment title / CI name;

b.   manufacturer's EID and reference number;

c.   NATO Stock Number (NSN) / UII, as applicable; and

d.   where a modification is applicable to the CI:

        (i)   ECO number;

        (ii)   modification number;

        (iii)   modification title; and

        (iv)   modification instruction identifier.

6.2.7   Build State Report

6.2.7.1   The CSAR shall include a Build State Report that documents the status of individual CIs, as delivered, including details of engineering changes, Deviations / variances, and relevant maintenance actions, and that includes:

a.   equipment title / CI name;

b. manufacturer's EID, reference number, and serial number for rotable items;

c. NSN and UII, as applicable;

d. where a modification has been applied to the CI:

(i) the ECO number / RFV number / modification instruction identifier;

(ii) date modification completed; and

(iii) modification strike number / dash number; and

e. for any rotables that were replaced during maintenance, prior to delivery, the reference / part number and serial number of those items.

6.2.8 ECP / ECO and RFV Reports

6.2.8.1 The CSAR shall include the current list of ECPs / ECOs and RFVs (if applicable), from the applicable register presented in dedicated ECP / ECO and RFV views, which include:

a. ECP / ECO / RFV number;

b. ECP / ECO / RFV title / short description;

c. where applicable, any parent AFD;

d. configuration identifier / product identifier / UII for the applicable CI;

e. change classification (ie, major, minor, administrative or RFV);

f. implementation status (eg, preliminary, CCB approved, issued, current effectivity / partial installation status, or closed); and

g. status date.

6.2.9 Defects Report

6.2.9.1 The CSAR shall include a Defects Report, which references all Defect reports for each CI, and for each Defect includes:

a. the configuration identifier / product identifier / UII for the applicable CI;

b. CI name;

c. Defect number;

d. Defect categorisation (eg, critical, major, minor);

e. if applicable, the RFV number; and

f. if resolved by a configuration / engineering change, the ECP / ECO number.

6.2.10 Action Item Report

6.2.10.1 The CSAR shall include an Action Item Report that lists all action items resulting from configuration audits, CCBs or ICWGs, which for each action item includes:

a. the configuration identifier / product identifier / UII for the applicable CI;

b. CI name;

c. the audit type / CCB / ICWG details;

d. action item number;

e. action item description;

f. date the action item was established;

g. if applicable, the contractual or specification requirement that is affected;

h. action item owner;

i. status / closure details; and

j. date for completion / date closed.

6.2.11   CSA Metrics Report

6.2.11.1   The CSAR shall include a Metrics Report that reports on measures for the execution of the Contractor's CM process and functions (eg, number and status of ECP / RFVs, processing times, and rates of closure of change documentation).

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-CM-DATA-XDATA-V5.3

2.   TITLE: CONTRACTOR-DEFENCE CM DATA EXCHANGE SCHEMA

3.   DESCRIPTION AND INTENDED USE

Note to drafters: If included, this DID is to be developed to meet the specific needs of the project / program. The DID should be as complete as practicable for inclusion in the RFT. If the DID cannot be finalised before the RFT, drafters should include a 'Note to tenderers' to identify the information requirements that are to be completed with the preferred tenderer / Contractor.

The complexity of the Materiel System, maturity of Commonwealth and Contractor CSA Systems, and Commonwealth requirements to access CM data to inform contract activities, will determine the optimum method by which CSA data is transferred from Contractor to Commonwealth. Refer to CASG Handbook (E&T) 12-2-002, CM Guide, which shows possible transfer methods - this DID is applicable to 'Method C' only. Use of this DID requires inclusion of the corresponding 'optional' clause in the SOW for the exchange of CSA data and related details in the CDRL.

The following note refers to the roll-out of the Defence ERP System with applicable CM functionality as part of the Enterprise Asset Management (EAM) framework. The Defence ERP System will release CM functionality for different domains (Land, Sea, Air) at different times, which may occur before or after the ED of any resultant Contract, and thus require changes to this DID before or after ED. If the applicable ERP 'Interface Development Specification' for 'Contractor Information Exchange' is finalised (eg, for uXLoader and OpenText Object Importer), and this DID is updated before ED, then the note below may also be deleted. Drafters may need to amend the note below as additional information becomes available from the ERP program.

Note: The Defence Enterprise Resource Planning (ERP) System will replace existing Defence information systems, over a number of years. If a Defence ERP solution for CM / CSA is not released prior to the start of the Contract, the subsequent introduction of these functions may require changes to the deliverable data formats developed in accordance with this DID.

3.1   Data transfer between Contractor and Defence Configuration Management (CM) Information Systems is an integral part of the Defence-Contractor interaction. This CM Data Exchange Schema defines how the Contractor is to apply EIA836B to realise an effective Configuration Status Accounting (CSA) data transfer capability. CSA data, produced from the Contractor's CSA system, and transferred in accordance with this DID, provides detailed information to describe the functional requirements and physical characteristics of Configuration Items (CIs), the status of changes to CIs, their associated documentation, and the actual configuration of individual CIs.

3.2   The Contractor uses the transferred CSA data to inform the Commonwealth of the current status of a product (ie, a complete system or CI) and its Product Configuration Information, associated Configuration Baselines, and changes to that product throughout the duration of the Contract.

3.3   The Commonwealth uses the transferred CSA data to:

     a.   understand the current configuration of a product, its Product Configuration Information, and relationship to Configuration Baselines (including system-level baselines); and

     b.   inform Commonwealth CM activities related to that product throughout its lifecycle.

4.   INTER-RELATIONSHIPS

4.1   The Contractor-Defence CM Data Exchange Schema is subordinate to the following data items, where these data items are required under the Contract:

     a.   Configuration Management Plan (CMP);

     b.   Systems Engineering Management Plan (SEMP); and

      c.   Contractor Engineering Management Plan (CEMP).

4.2   The Contractor-Defence CM Data Exchange Schema inter-relates with the CSA Report.

5.   APPLICABLE DOCUMENTS

5.1   The following document forms a part of this DID to the extent specified herein:

EIA836B	Configuration Management Data Exchange and Interoperability
DEF(AUST)10814	Land Materiel Data Exchange Standard
ANP4422-6001	Materiel Data Exchange Specification
EAMI 152 & 153	Defence ERP Program Interface Development Specification - Contractor Information Exchange

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items' in the Statement of Work.

6.2   Specific Content

6.2.1   Exchange of CSA data shall conform to:

Note to drafters: Insert the exchange standards to be specified here.

      a.   DEF(AUST) 10814, Land Materiel Data Exchange Standard;

      b.   ANP4422-6001, Materiel Data Exchange Specification;

      c.   EAMI 152 & 153, Defence ERP Program Interface Development Specification - Contractor Information Exchange, and

      d.   [...DRAFTER TO INSERT...].

Note to drafters: If applicable, this section may need to include any additional specific physical or electronic transfer arrangements for transfer of CSA data in accordance with the applicable standard.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-CM-MGT-CMP-V5.3

2.   TITLE: CONFIGURATION MANAGEMENT PLAN

3.   DESCRIPTION AND INTENDED USE

3.1   The Configuration Management (CM) Plan (CMP) is the overarching plan for the management and implementation of CM for the Contract. The CMP defines the Contractor's methodologies, systems and processes for meeting the CM requirements of the Contract. The CMP includes the definition of CM activities for all hardware, Software and data (including all data items) associated with the Contract.

3.2   The Contractor uses the CMP to:

a.   define, manage and monitor the CM program for the Contract;

b.   ensure that those parties (including Subcontractors) who are undertaking CM activities understand their respective responsibilities, the processes to be used, and the time-frames involved; and

c.   define the Contractor's expectations for Commonwealth involvement in the provision of CM activities.

3.3   The Commonwealth uses the CMP to:

a.   gain visibility into the Contractor's planning for meeting the CM requirements of the Contract;

b.   gain assurance that the Contractor's CM activities will meet the requirements of the Contract;

c.   provide a basis for monitoring and assessing the Contractor's performance in relation to the CM requirements of the Contract;

d.   confirm and coordinate Commonwealth interfaces with the Contractor's CM program; and

e.   provide input into the Commonwealth's planning.

4.   INTER-RELATIONSHIPS

4.1   The CMP is subordinate to the following data items, where these data items are required under the Contract:

a.   Project Management Plan (PMP); or

b.   Support Services Management Plan (SSMP).

4.2   The CMP inter-relates with the following data items, where these data items are required under the Contract:

a.   Systems Engineering Management Plan (SEMP);

b.   Software Management Plan (SWMP);

c.   Integrated Support Plan (ISP);

d.   System Review Plan (SRP);

e.   Verification and Validation Plan (V&VP);

f.   Quality Plan (QP); and

g.   Mission System Technical Documentation Tree.

5.   APPLICABLE DOCUMENTS

5.1   The following data items form a part of this DID to the extent specified herein:

Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   Configuration Management Organisation

6.2.1.1   The CMP shall describe the CM organisation for the Contract, including:

a.   the functional structure of the Contractor's and Approved Subcontractors' CM organisation;

b.   lines of authority within the CM organisation and between the CM and engineering and project management organisations;

c.   details of the formal links between the Contractor's CM organisation and Subcontractors; and

d.   the responsibilities and authority of participating groups, organisations and individuals involved in CM, including their role in Configuration Control Boards (CCBs) and Interface Control Working Groups (ICWGs).

6.2.2   Configuration Management Integration

6.2.2.1   The CMP shall:

a.   identify and detail the integration of CM functions with other Contract activities;

b.   detail the Commonwealth's involvement and responsibilities in the Contractor's CM process, including the Commonwealth's involvement in CCBs and ICWGs;

c.   the integration of Approved Subcontractors' activities with the Contractor's activities to achieve the CM requirements of the Contract; and

d.   describe the integration of CM functions with other Contract activities, such as System Reviews.

6.2.3   Configuration Management Phasing and Milestones

6.2.3.1   The CMP shall describe and graphically portray the sequence of events and milestones for implementation of CM in phase with major Milestones and events. Where possible, this shall be done by cross-referencing to the applicable document (eg, the SRP). Events should include:

a.   the release and submission of Configuration Documentation in relation to Contract events (eg, System Reviews);

b.   the establishment of internal developmental configuration and contractual baselines;

c.   the implementation of internal and Commonwealth configuration control;

d.   the establishment of CCBs and ICWGs;

e.   the implementation of the Configuration Status Accounting (CSA) system; and

f.   the conduct of configuration audits.

6.2.4   Data Management

6.2.4.1   Specification Tree and Configuration Item List

6.2.4.1.1   The CMP shall define the relationship between the specification tree, as captured in the Mission System Technical Documentation Tree, and the Configuration Item (CI) list, and define how these will be managed.

6.2.4.2   Document Management

6.2.4.2.1   The CMP shall define the process and procedures to be used for managing the documentation required for the conduct of the Contract, including both formal deliverables and internal Contractor and Subcontractor documentation.

6.2.4.3   Drawing Management

6.2.4.3.1   The CMP shall define the process and procedures to be used for managing the engineering drawings and shall include:

a.   identification of the engineering drawing practices standard used both by the Contractor and Subcontractors;

b.   a statement of any need for deviation from the content of this standard during the program; and

c.   an overview of the drawing management system including:

(i)   a description of any information system tools used (eg, drawing management database) to support the drawing management system; and

(ii)   a definition of the drawing procedures to be used.

6.2.5   Configuration Identification

6.2.5.1   Selection of Configuration Items

6.2.5.1.1   The CMP shall define the procedures for the selection of CIs, and detail the criteria used for their selection. The CMP shall, by inclusion or reference, define the list of CIs and their respective specifications and other defining top-level documentation.

6.2.5.2   Configuration Identifiers

6.2.5.2.1   The CMP shall define the procedures for assignment and physical marking of configuration identifiers, including:

a.   document numbers and revision markings to documentation;

b.   nomenclature, serial numbers and part numbers to hardware; and

c.   software identifiers to software and firmware.

6.2.5.3   Developmental Configuration

6.2.5.3.1   The CMP shall define the procedures for establishing and controlling the documentation and repositories containing the elements of the developmental configuration, including:

a.   the procedures for reporting, processing, tracking, rectifying and recording problems identified in the documentation defining the developmental configuration; and

b.   the procedures for the establishment and control of a documentation library, drawing library and software development library.

6.2.5.4   Configuration Baselines

6.2.5.4.1   The CMP shall define the requirements for establishing Configuration Baselines, and include:

a.   the procedures for the establishment of, at least, the Functional, Allocated and Product Baselines; and

b.   the documentation to be used to define each Configuration Baseline.

6.2.5.5   Engineering Release

6.2.5.5.1   The CMP shall define the procedures for issuing approved configuration documentation, and amendments to this documentation, to functional activities (eg, manufacturing, logistics, and acquisition) within the Contractor's organisation.

6.2.5.6   Configuration Control

6.2.5.6.1   The CMP shall define and detail the functions, membership, responsibilities and authority of the CCBs planned for the Contract.

6.2.5.6.2   The CMP shall define the procedures, including Commonwealth involvement, and associated documentation for processing the following:

a.   classification of changes, and the level of authority for change approval / concurrence;

b.   Contract Change Proposals (CCPs);

c.   Major Changes;

d.   Minor Changes;

e.   Applications for a Deviation (and related requests for variance, if applicable);

f.   Advance Change Study Notices; and

g.   Specification Change Notices.

6.2.6   Configuration Status Accounting

6.2.6.1   The CMP shall define the procedures for CSA, including:

a.   methods for collecting, recording, processing and maintaining the data required to provide the status of accounting information through reports and / or access to a CSA system;

b.   a complete description of the CSA system with respect to the areas related to:

(i)   the identification of the currently approved configuration documentation and configuration identifiers associated with each CI;

(ii)   the status of proposed engineering changes from initiation to implementation;

(iii)   the results of configuration audits, and the status and disposition of discrepancies;

(iv)   the status of Applications for a Deviation;

(v)   the ability to trace changes from the baseline documentation of each CI; and

(vi)   the effectiveness and installation status of configuration changes to all CIs at all locations;

c.   the relationships between the CSA system held by the Contractor and the CSA systems held by applicable Approved Subcontractors (which may be or may represent respective Original Equipment Manufacturers (OEMs)) for each of the CIs, including:

(i)   identifying where the master CSA system for the Mission System, or the major elements thereof, will reside (ie, the system or systems that hold the master data);

(ii)   if the master CSA system is not held by the Contractor, describing how the CSA systems will interact and interrelate, firstly, to satisfy the requirements of the Contract (eg, to ensure that the data held by the Contractor is always current) and, secondly, to undertake any future upgrades of the Mission System over its life; and

(iii)   describing the scope boundaries between the CSA system held by the Contractor and the CSA systems held by the applicable Approved Subcontractors; and

d.   identification and description of the reports available from the CSA system and their frequency of reporting and distribution.

6.2.7   Configuration Audits

6.2.7.1   If an SRP is not required under the Contract, the CMP shall:

a.   describe the Contractor's methodology and processes to establish and conduct Functional Configuration Audits (FCAs) and Physical Configuration Audits (PCAs);

      b.   detail, for each audit, the proposed audit venue(s) and the details of the organisation(s) and individuals involved in the audits and their specific audit responsibilities;

      c.   define entry criteria, exit criteria and checklist items for each FCA and PCA, incorporating the associated SOW requirements (eg, as may be included in Mandated System Review checklists for FCA and PCA, respectively) and supplemented where required by the Contractor's internal processes;

      d.   describe the plans, procedures, documentation, and schedules for the audits; and

      e.   describe the format for reporting results of in-process audits.

6.2.7.2   If an SRP is required under the Contract, the CMP shall summarise the information contained in the SRP regarding FCA and PCA, and provide any additional information in the CMP necessary to address the information requirements defined under clause 6.2.7.1.

6.2.8   **Subcontractor Control**

6.2.8.1   The CMP shall define the methods used to ensure that Approved Subcontractors comply with the CM requirements of the Contract.

6.2.9   **Master Record Indexes**

6.2.9.1   If required under the Contract, the CMP shall define the production and management of Master Record Indexes, including schedule, organisational responsibilities, and maintenance.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-CM-MGT-ECP-V5.3

2.   TITLE: ENGINEERING CHANGE PROPOSAL

3.   DESCRIPTION AND INTENDED USE

3.1   An Engineering Change Proposal (ECP), including as a software-only change defined in a Software Change Proposal (SWCP), is required to enable the proposal, review and assessment of, and the engineering management and control of changes to the existing design configuration of hardware and/or software.

3.2   The Contractor and the Commonwealth use the ECP (including the SWCP) as the common basis for defining the requirements, significance, approvals and scope of changes to the existing Functional Baseline and/or Product Baseline of the Materiel System and, if applicable, proposed changes to interfacing systems.

4.   INTER-RELATIONSHIPS

4.1   Each ECP inter-relates with the following data items, where these data items are required under the Contract:

        a.   Contractor Engineering Management Plan (CEMP);

        b.   Configuration Management Plan (CMP);

        c.   Software Management Plan (SWMP); and

        d.   Software Support Plan (SWSP).

5.   APPLICABLE DOCUMENTS

Note to drafters: Amend the following lists for the ADF regulatory / assurance framework to be referenced from the ECP form(s) annexed to this DID.

5.1   The following documents form a part of this DID to the extent specified herein:

        AAP 8000.011   Defence Aviation Safety Regulations (DASR)

        ANP3411-0101   Navy Materiel Assurance Publication

        LMSM   Land Materiel Safety Manual

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.2   Specific Content

6.2.1   Specific Requirements

Note to drafters: Insert additional references below as required (eg, Configuration Management manual or software standard, as appropriate), noting that the CEMP, CMP, SWMP and/or SWSP that are used to tailor the application of manuals / standards are already applied through clause 4 (above) and the inclusion of 'Contract' in the clause below. Attach the applicable ECP and SWCP forms as annexes to this DID.

6.2.1.1   All engineering design and configuration change proposals shall be documented using the ECP form at Annex A, and in accordance with the Contract and:

        a.   [...INSERT REFERENCE...]; and

        b.   [...INSERT REFERENCE...].

Note to drafters: If including a separate SWCP, then retain and amend the clause below; otherwise, it may be deleted (as should reference to Annex B below). Insert additional references below as required (eg, software standards, as appropriate), noting that the CEMP, CMP, SWMP and/or SWSP that tailor the application of manuals / standards are already applied through clause 4 (above) and the inclusion of 'Contract' in the clause below. Attach the applicable SWCP form as an annex to this DID.

6.2.1.2   All software-only design and configuration change proposals shall be documented using the SWCP form at Annex B, and in accordance with the Contract and:

      a.   [...INSERT REFERENCE...]; and

      b.   [...INSERT REFERENCE...].

6.3   Annexes

Note to drafters: Include applicable forms as Annexes.

A.   Engineering Change Proposal form

B.   Software Change Proposal form

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ENG-DEF-SS-V5.3

2.   TITLE: SYSTEM SPECIFICATION

3.   DESCRIPTION AND INTENDED USE

3.1   The System Specification (SS) defines the validated requirements for the Mission System. Unless otherwise specified in the Contract, a separate SS is required for each Mission System defined in the Contract.

3.2   The Contractor and the Commonwealth use the SS as the basis for common understanding of the technical requirements for the Mission System.

4.   INTER-RELATIONSHIPS

4.1   The SS inter-relates with the following data items, where these data items are required under the Contract:

   a.   Support System Specification (SSSPEC);

   b.   Requirements Traceability Matrix (RTM); and

   c.   Verification Cross Reference Matrix (VCRM).

5.   APPLICABLE DOCUMENTS

5.1   The following document forms a part of this DID to the extent specified herein:

   DI-IPSC-81431A   System/Subsystem Specification (SSS)

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   The specific SS content shall be in accordance with DI-IPSC-81431A, section 4, *Content Requirements*.

6.2.2   If the Contract requires a VCRM, DI-IPSC-81431A *Qualification Provisions* should be provided by reference to the VCRM.

6.2.3   If the Contract requires a RTM, DI-IPSC-81431A *Requirements traceability* should be provided by reference to the RTM.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ENG-DES-HEPR-V5.3

2.   TITLE: HUMAN ENGINEERING PROGRAM REPORT

3.   DESCRIPTION AND INTENDED USE

3.1   The Human Engineering Program Report (HEPR) describes the activities undertaken within the Contractor's Human Engineering (HE) Program, identifies its elements, and describes how the outcomes address the SOW requirements.

3.2   The Contractor uses the HEPR to present progress on the elements of the HE program up to Final Acceptance.

3.3   The Commonwealth uses the HEPR to monitor progress of the HE program and assess its ability to meet the SOW objectives up to Final Acceptance.

4.   INTER-RELATIONSHIPS

4.1   The HEPR is subordinate to the following data items, where these data items are required under the Contract:

    a.   Systems Engineering Management Plan (SEMP); and

    b.   Integrated Support Plan (ISP).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

    MIL-STD-1472G   *Human Engineering*

    MIL-HDBK-46855A   *Human Engineering Program, Process and Procedures*

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   The HEPR shall describe the activities undertaken within the Contractor's HE Program, and describe how the outcomes address the Contract requirements.   The activities described shall include:

    a.   Subcontractor activities,

    b.   systems analysis,

    c.   equipment design,

    d.   equipment procedure development,

    e.   Personnel and Training requirements, and

    f.   Verification and Validation.

6.2.2   The HEPR shall identify:

    a.   the agreed tailoring of MIL-HDBK-46855 or an equivalent standard Approved by the Commonwealth Representative; and

    b.   the agreed tailoring of MIL-STD-1472 or an equivalent standard Approved by the Commonwealth Representative.

6.2.3   Any agreed tailoring shall identify specific provisions by paragraph, rationale, for tailoring and effects of tailoring on the HE program. If no tailoring is applied beyond that specified in the SOW, then this shall be stated.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ENG-HW-DWGS-V5.3

2.   TITLE: ENGINEERING DRAWINGS

3.   DESCRIPTION AND INTENDED USE

3.1   In this DID, '*Engineering Drawings*' refers to Engineering Design Data for hardware products of the Materiel System, including technical drawings and data sets (eg, three-dimensional modelling and computer-aided design data). Engineering Drawings include design and production drawings and/or data sets for the applicable item(s) / system(s), as identified in the Approved Drawing List.

3.2   The Contractor uses the Engineering Drawings as part of the definition of the Product Baseline(s) for the applicable item(s) / system(s).

3.3   The Commonwealth uses the Engineering Drawings to:

a.   confirm the current state of the applicable item / system, including when the item / system is being offered for Acceptance;

b.   accurately define the interfaces to external systems; and

c.   enable the applicable system / item to be supported over its Life-of-Type.

4.   INTER-RELATIONSHIPS

4.1   The Engineering Drawings are subordinate to the following data items, where these data items are required under the Contract:

a.   Systems Engineering Management Plan (SEMP);

b.   Integrated Support Plan (ISP);

c.   Technical Data Plan (TDP); and

d.   Configuration Management Plan (CMP).

4.2   The Engineering Drawings inter-relate with the following data items, where these data items are required under the Contract:

a.   Drawing List;

b.   Mission System Technical Documentation Tree (MSTDT);

c.   publications (including interactive electronic technical publications) and Training Materials (including Computer Based Training (CBT)) that contain or refer to the Engineering Drawings; and

d.   Support System Technical Data List (SSTDL).

5.   APPLICABLE DOCUMENTS

5.1   The following document forms a part of this DID to the extent specified herein:

DEF(AUST)CMTD-5085C   Engineering Design Data for Defence Materiel

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall not comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.2   Specific Content

6.2.1   Engineering Drawings

6.2.1.1   Unless otherwise specified by the SOW or in the Approved governing plan for Technical Data under the Contract (ie, the Approved TDP or Approved ISP), the Engineering

Drawings shall consist of Level 3 drawings as defined by DEF(AUST)CMTD-5085C (as applicable to the type of Engineering Drawing).

6.2.1.2   All Engineering Drawings, associated lists and other design records shall be prepared, amended and managed in accordance with the requirements of DEF(AUST)CMTD-5085C (or equivalent specification in the Approved governing plan for Technical Data under the Contract) and the Approved governing plan for Configuration Management under the Contract (eg, CMP or SEMP).

6.2.1.3   Unless otherwise specified in the SOW, all Engineering Drawings shall be delivered in the formats defined in the Approved governing plan for Technical Data under the Contract (ie, the Approved TDP or Approved ISP) or as otherwise defined in the Approved Drawings List.

6.2.1.4   Configuration Control details for Engineering Drawings (eg, amendment status) shall be in accordance with the Approved governing plan for Configuration Management under the Contract.

6.2.1.5   The Engineering Drawings to be delivered shall include all drawings identified in the Approved Drawing List for the applicable delivery (eg, for a Mandated System Review or System Acceptance Milestone).

6.2.2   **Interpretation Document**

6.2.2.1   An interpretation document shall be provided for each Contractor and Subcontractor drawing system in accordance with DEF(AUST)CMTD-5085C (or equivalent specification in the Approved governing plan for Technical Data under the Contract). Each interpretation document shall include:

a.   information to facilitate interpretation of the drawing and part number structure including the standards used; and

b.   an explanation of symbology pertaining to notes, revision markers and effectivity annotations.

6.2.3   **Associated Lists**

6.2.3.1   Associated lists shall be prepared in accordance with DEF(AUST)CMTD-5085C (or equivalent specification in the Approved governing plan for Technical Data under the Contract) and provided in electronic format.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ENG-MGT-E3MP-V5.3

2.   TITLE: ELECROMAGNETIC ENVIRONMENTAL EFFECTS MANAGEMENT PLAN

3.   DESCRIPTION AND INTENDED USE

3.1   The Electromagnetic Environmental Effects (E3) Management Plan (E3MP) is used to describe the Contractor's plans, systems and processes for meeting the E3 program requirements of the Contract, including the activities:

a.   associated with the management of Electromagnetic Interference (EMI), Electromagnetic Compatibility (EMC) and, if applicable, lightning protection, Electromagnetic Pulse (EMP), and E3-related hazards (eg, electromagnetic Radiation Hazards (RADHAZ), Hazards of Electromagnetic Radiation to Ordnance (HERO) and Hazards of Electromagnetic Radiation to Fuel (HERF)) for the Materiel System;

b.   required to acquire, validate and analyse data to prevent the occurrence of adverse electromagnetic interactions, including co-site interference issues and analysis; and

c.   required to evaluate, and eliminate/control adverse E3 interactions throughout the system life cycle, including the interactions:

(i)   within the Mission System;

(ii)   between the Mission System and the Support System, including relevant Support System Components that connect to, or operate in close proximity to, the Mission System; and

(iii)   between the Mission System and the broader operating and support environments, including (where applicable) other systems and equipment within a higher-level system (eg, a platform).

3.2   The Contractor uses the E3MP to:

a.   define, manage and monitor the E3 program, including how it will be undertaken to meet contractual requirements;

b.   ensure that those parties (including Subcontractors) who are undertaking E3-related activities understand their respective responsibilities, the processes to be used, and the time-frames involved;

c.   integrate the E3 activities being performed by Approved Subcontractors with the Contractor's E3 activities to ensure that a coherent and cohesive E3 program is realised; and

d.   provide assurance to the Commonwealth that the Contractor's plan for the E3 program will satisfy the E3 requirements of the Contract.

3.3   The Commonwealth uses the E3MP to:

a.   gain visibility into the Contractor's planning for meeting the E3 requirements of the Contract;

b.   gain assurance that the Contractor's E3 program will satisfactorily meet the E3 requirements of the Contract;

c.   provide a basis for monitoring and assessing the Contractor's E3 program;

d.   determine whether the program will achieve a level of electromagnetic compatibility that is compliant with the E3 requirements of the Mission System Functional Baseline (FBL); and

e.   as input into the Commonwealth's own planning.

4.   INTER-RELATIONSHIPS

4.1   The E3MP is subordinate to the following data items, where these data items are required under the Contract:

    a.   System Engineering Management Plan (SEMP); and

    b.   Integrated Support Plan (ISP).

4.2   The E3MP inter-relates with the following data items, where these data items are required under the Contract:

    a.   System Specification (SS) for each different type of Mission System;

    b.   Support System Specification (SSSPEC);

    c.   System Review Plan (SRP);

    d.   Verification and Validation Plan (V&VP);

    e.   Verification Cross Reference Matrix (VCRM);

    f.   all system safety data items (ie, for the safety aspects associated with E3, such as radiation hazards);

    g.   Health and Safety Management Plan (HSMP) (eg, in relation to the management of Problematic Sources);

    h.   all data items relating to Emanation Security (EMSEC), Information and Communications Technology (ICT) security and cyber security (ie, for security aspects associated with E3);

    i.   Equipment Certification to Access Radiofrequency Spectrum (ECARS); and

    j.   Contract Master Schedule (CMS).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form part of this DID, to the extent specified herein:

ARPANS Act	*Australian Radiation Protection and Nuclear Safety Act 1998*
ARPANS Regulations	*Australian Radiation Protection and Nuclear Safety Regulations 1999*
	The E3-related standards identified under the Electromagnetic Environmental Effects Program clause of the SOW.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled "General Requirements for Data Items".

6.1.2   When the Contract has specified delivery of another data item that contains aspects of the required information, the E3MP shall summarise these aspects and refer to the other data item.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   Overview

6.2.1.1   The E3MP shall describe the Contractor's strategy for satisfying the E3 requirements of the Contract, including the associated objectives, scope, constraints, and assumptions. Any risks associated with the Contractor's E3 program shall be documented in the Risk Register; however, the E3MP shall describe the risk-management strategies associated with any global risks relating to the E3 program.

6.2.1.2   The E3MP shall describe the organisational arrangements for conducting the E3 program for the Contract, including identifying any Subcontractors involved in the Contractor's E3 program and their associated roles and responsibilities.

6.2.2   Activities and Standards

6.2.2.1   The E3MP shall:

a.   identify and outline the activities to be conducted as part of the E3 program for each level of the Mission System design, including any specific analysis techniques to be employed;

a.   relate the identified E3 program activities to the specified E3 program outcomes in the Statement of Work (SOW);

b.   describe how E3 program activities will be integrated with other specialty engineering activities and the overall engineering program to achieve concurrent and integrated design outcomes, particularly including the interactions and interrelationships with:

    (i)   the system safety program in relation to the management of RADHAZ, including hazards to personnel, ordnance and fuel; and

    (ii)   the system security program in relation to the management of EMSEC, ICT security and cyber security;

c.   identify, for each activity, the internal Contractor's procedures to be used to conduct the identified activities or, where no internal Contractor's procedures exist, how this procedural deficiency will be overcome; and

d.   identify, for each activity, the positions within the organisation assigned to perform that activity, and provide an outline of the role of each position in the activity.

6.2.2.2   The E3MP shall identify the applicable legislation and the standards to be utilised by the Contractor and Subcontractors to undertake the E3 program, including:

a.   subject to clause 6.2.2.3, the standards identified at clause 5; and

b.   to the extent not identified at clause 5, standards pertaining to EMI, EMC, RADHAZ, EMP, and lightning and other electrostatic discharges.

6.2.2.3   Where the standards identified by the Contractor differ from those identified at clause 5, the E3MP shall describe the rationale for use of these standards to the Commonwealth, including how any shortfalls between the Contractor's proposed standards and the identified standards will be satisfied.

6.2.2.4   The E3MP shall describe (within annexes to the E3MP for each standard (if required due to the size of the standard)), the Contractor's tailoring of the identified standards to meet the E3 requirements of the Contract, including:

a.   the tasks or processes from each standard to be undertaken, including the rationale for either including or excluding a task or process;

a.   the expected outcomes from each task and/or process to be undertaken;

b.   how the expected outcomes relate to the requirements of the Contract and the Contractor's proposed solutions for the Mission System and the Support System;

c.   how the outcomes will be documented/captured;

d.   the data required by the E3 program from other programs (eg, engineering program) to enable the outcomes to be achieved;

e.   the tools to be utilised to undertake the tasks or processes; and

f.   the expected role of the Commonwealth in reviewing the outcomes.

6.2.2.5   The E3MP shall describe how the Contractor's E3 program will achieve compliance with the applicable legislation identified in response to clause 6.2.2.2, including the Australian Radiation Protection and Nuclear Safety Act 1998 and Australian Radiation Protection and Nuclear Safety Regulations 1999.

6.2.3 System Reviews

6.2.3.1   The E3MP shall describe how E3 program outputs are integrated into System Reviews, cross-referring to the Approved SRP where appropriate.

6.2.3.2   The E3MP shall outline the procedures for conducting formal and informal reviews of E3 program outputs.

6.2.4 Verification and Validation

6.2.4.1   The E3MP shall describe how the E3 requirements of the Contract will be Verified and Validated, cross-referring to the V&VP where appropriate.

3

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ENG-MGT-GP-V5.3

2.   TITLE: GROWTH PLAN

3.   DESCRIPTION AND INTENDED USE

3.1   The Growth Plan (GP) documents the Contractor's plans and expectations for the management of technology changes for the system during the acquisition phase (ie, design, development and production) and over its Life-of-Type (LOT). The primary target of the GP is the Mission System; however, it shall also apply to any critical, high value Support System Components. Where the term 'system' is used in this DID, it encompasses both the Mission System and the critical, high-value Support System Components.

3.2   The Contractor uses the GP:

a.   to document the approach, plans and procedures for managing technology changes over the LOT of the system;

b.   to document the approach, plans and procedures that avoid Obsolescence problems at the time of delivery; and

c.   as a baseline against which progress of these activities are monitored.

3.3   The Commonwealth uses the GP to:

a.   gain an accurate insight into the approach, plans and procedures being employed by the Contractor in the execution of activities related to the management of technology changes;

b.   ensure that the Contractor's design, development and production programs will not deliver equipment that has Obsolescence problems at the time of delivery; and

c.   ensure that the Contractor's solutions for the Mission System and Support System minimises Life Cycle Costs (LCC) when system growth and Obsolescence issues are taken into consideration.

4.   INTER-RELATIONSHIPS

4.1   The GP is subordinate to the following data items, where these data items are required under the Contract:

a.   Project Management Plan (PMP);

b.   Systems Engineering Management Plan (SEMP);

c.   Integrated Support Plan (ISP); and

d.   Support Services Management Plan (SSMP).

4.2   The GP inter-relates with the following data items, where these data items are required under the Contract:

a.   Life Cycle Cost Management Plan (LCCMP);

b.   Life Cycle Cost Report and Model (LCCRM); and

c.   System Review Plan (SRP).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   Growth, Evolution and Obsolescence Program Organisation

6.2.1.1   The GP shall identify and describe in detail the responsibilities of the organisation(s) and individuals tasked with managing the growth, evolution and obsolescence program, including those of Subcontractors.

6.2.1.2   The GP shall describe the relationship of the growth, evolution and obsolescence program to other speciality engineering, Integrated Logistics Support (ILS) and project management programs undertaken by the Contractor. In particular, the GP shall describe the relationship of the growth, evolution and obsolescence program to the technical metrics program.

6.2.2   Candidate Elements

6.2.2.1   The GP shall identify candidate elements for change based on an assessment of the potential areas of the system that may change during the post-design phase (ie, post-DDR) or over the LOT of the system due to:

   a.   evolution of technology;

   b.   changes to threats;

   c.   changes to user needs;

   d.   changes to external systems and interfaces including, if applicable, changes to host systems (ie, the Materiel Systems, platforms or information technology networks for which the system being analysed is a component); or

   e.   system enhancements or upgrades.

6.2.2.2   Choice of candidate elements should include a consideration of system hardware and software, as well as elements that interface and integrate with humans. An element may be at any level of the system hierarchy and is not necessarily a Hardware Configuration Item (HWCI) or Computer Software Configuration item (CSCI) (ie, elements may include subsystems, segments or groups of design components).

6.2.2.3   The primary candidate elements are expected to come from the Mission System; however, candidate elements should also be identified for any critical, high value Support System components. Candidate elements are to include those elements under the control of Subcontractors.

6.2.2.4   The GP shall include the rationale for either including or excluding elements of the system as candidate elements for change. Although candidate elements may be assessed early in the design process, the list needs to be reassessed (in updates to the GP) as the design matures and all parties develop greater knowledge of possible future changes.

6.2.3   Design Aspects

6.2.3.1   The GP shall identify design aspects for each candidate element that would allow those candidate elements to be either replaced or modified with new or updated technology. Examples of relevant design aspects include the use of architectural features, such as:

   a.   standardised internal and external interfaces with the greatest potential design lifetime (ideally greater than the LOT);

   b.   an open, flexible infrastructure, capable of adaptation, extension and scaling to counter Obsolescence and to provide new functionality and capacity;

c.   modularity of design;

d.   use of standards and 'openness' of architecture; and

e.   minimisation of software dependence upon the hardware platform.

6.2.3.2   Key interfaces are those most likely to be subject to change or with the greatest desired design life. The GP shall identify the key internal and external interfaces at which future change is likely to occur and discuss the design approach taken to ensure interface longevity.

6.2.3.3   The GP shall identify likely impacts upon performance of the system that may be expected due to 'natural' evolution of technology and the consequence of that increased performance to the longevity of the overall design.

6.2.4   Acquisition Phase

6.2.4.1   For the identified candidate elements, the GP shall identify the steps that will be taken by the Contractor, including the applicable scheduling and purchasing approach, to ensure that:

a.   at the time of delivery, a balance has been achieved between the risks of immature technology and equipment Obsolescence (noting that a primary aim of the GP is to demonstrate that the Contractor has incorporated appropriate steps into its design-and-development plans to ensure that it will not deliver equipment that has Obsolescence problems); and

b.   the Contractor's solutions for the Mission System and Support System will minimise LCC (as demonstrated in accordance with the Approved LCCMP) when any expected through-life upgrades and enhancements are taken into consideration.

6.2.4.2   The GP shall identify the issues relating to system growth that will be addressed at each Mandated System Review and each Internal System Review. The entry and exit criteria and checklist items for each review, which relate to system growth, should be included in the SRP.

6.2.4.3   The GP shall identify the key decision points in the schedule where design or purchasing decisions, which relate to either system Obsolescence or system growth, need to occur and the visibility of these that will be provided to the Commonwealth.

6.2.4.4   The GP shall describe the Contractor's methodology for incorporating the growth, evolution and obsolescence program into the LCC program (with appropriate cross-references to the LCCMP).

6.2.5   Support Phase

6.2.5.1   For the identified candidate elements, the GP shall identify the expected need for upgrades over the LOT due to the evolution of technology, as well as the Contractor's plans and timeframes for incorporating any such upgrades.

6.2.5.2   The GP shall identify and explain any implications for the Commonwealth of not maintaining the system delivered to the Commonwealth with the most current configuration of that system, or applicable subsystem, as it is upgraded by the original equipment manufacturer throughout the LOT. To the extent known, the GP shall also identify any implications should the Commonwealth choose not to proceed with any particular upgrade.

6.2.6   Technical Data and Software Rights

6.2.6.1   For each of the areas of potential system growth over the LOT, including the key interfaces discussed in response to clause 6.2.3.2, the GP shall identify any issues or limitations associated with Technical Data and Software rights (including limits caused by the licensing of Intellectual Property), the implications of those issues and limitations, and how the Contractor proposes that these are to be addressed.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ENG-MGT-HEPP-V5.3

2.   TITLE: HUMAN ENGINEERING PROGRAM PLAN

3.   DESCRIPTION AND INTENDED USE

3.1   The Human Engineering Program Plan (HEPP) describes the Contractor's Human Engineering (HE) program, identifies its elements, and explains how the elements will be managed for the Contract.

3.2   The Contractor uses the HEPP as a working document that provides direction and guidance to participants in the Contractor's HE program.

3.3   The Commonwealth uses the HEPP:

a.   to provide visibility into the Contractor's technical planning;

b.   for progress and risk assessment purposes; and

c.   to provide input into the Commonwealth's own planning.

4.   INTER-RELATIONSHIPS

4.1   The HEPP is subordinate to the following data items, where these data items are required under the Contract:

a.   Systems Engineering Management Plan (SEMP);

b.   Integrated Support Plan (ISP);

c.   Configuration Management Plan (CMP); and

d.   Verification and Validation Plan (V&VP).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

MIL-STD-1472G   Human Engineering

MIL-HDBK-46855A   Human Engineering Program, Process and Procedures

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   Tailoring of Applicable Standards

6.2.1.1   The HEPP shall include a tailoring of MIL-HDBK-46855A or equivalent standard Approved by the Commonwealth Representative. This tailoring shall identify specific provisions by paragraph, rationale, for tailoring and effects of tailoring on the HE program. If no tailoring is applied beyond that specified in the SOW, then this shall be stated.

6.2.1.2   The HEPP shall include a tailoring of MIL-STD-1472G or equivalent standard Approved by the Commonwealth Representative. This tailoring shall identify specific provisions by paragraph, as applicable. If no tailoring is applied beyond that specified in the SOW, then this shall be stated.

6.2.2   Organisation

6.2.2.1   The HEPP shall identify and describe the Contractor's primary organisational element responsible for complying with HE requirements. The functions and internal structure of this element shall be defined. Structural definition shall include the number of proposed personnel over time and summary job descriptions for each person. In addition, the relationships of this element to other organisational elements responsible for areas impacted by HE, such as those charged with equipment and software design, safety, Training, test and evaluation, integrated logistic support, and other engineering specialty programs (such as availability, reliability, maintainability, Configuration Management, and risk management) shall be fully explained.

6.2.3   Human Engineering Strategy

6.2.3.1   The HEPP shall describe the steps and intermediate milestones of the Contractor's strategy for satisfying the Contract objectives for HE.

6.2.3.2   The HEPP shall include a milestone chart which identifies each separate HE effort to be accomplished.

6.2.3.3   The HEPP shall include a summary verification and validation schedule depicting major HE tests, evaluations, and demonstrations in relationship to other Milestones.

6.2.4   Human Engineering in Subcontractor Efforts

6.2.4.1   The HEPP shall define how all HE work conducted by Subcontractors shall be scoped, managed and monitored to ensure the Contract objectives are met.

6.2.4.2   The HEPP shall define how the Subcontractor HE documentation will be controlled and integrated into the overall project documentation.

6.2.5   Expectations of the Contractor

6.2.5.1   The HEPP shall identify the expectations of the Contractor with respect to the Commonwealth in order to ensure the HE objectives are met.

6.2.6   Human Engineering in System Analysis

6.2.6.1   The HEPP shall identify those HE efforts in system analysis, as described in the tailoring of MIL-HDBK-46855A and the organisational element(s) responsible for their performance.

6.2.6.2   The HEPP shall describe the participation of HE in system mission analysis, determination of system functional requirements and capabilities, allocation of system functional requirements to human/hardware/software, development of system functional flows, and performance of system effectiveness studies.

6.2.7   Human Engineering in Equipment Design

6.2.7.1   The HEPP shall describe the HE effort in equipment detail design to ensure compliance with the tailoring of MIL-STD-1472G and other HE requirements specified by the Contract.

6.2.7.2   The HEPP shall describe the HE participation in studies, tests, mock-up evaluations, dynamic simulation, specification preparation and System Reviews.

6.2.8   Human Engineering in Equipment Procedure Development

6.2.8.1   The HEPP shall describe the HE effort in equipment procedure development to ensure compliance with the tailoring of MIL-HDBK-46855A.

6.2.8.2   The HEPP shall describe the methods used by the Contractor to ensure that:

a.   operator and maintainer functions and tasks are allocated, organised, and sequenced for efficiency, safety, and reliability; and

b.   the results of this effort are reflected in operational, technical and training publications, and in training system design.

6.2.9   Derivation of Personnel and Training Requirements

6.2.9.1   The HEPP shall describe the methods by which the Contractor shall ensure that operator and maintainer Personnel and Training requirements are based upon human performance requirements developed from system analysis data.

6.2.10   Human Engineering in Verification and Validation

6.2.10.1   The HEPP shall describe HE Verification and Validation (V&V) as an integrated effort within the Contractor's V&V program.

6.2.10.2   The HEPP shall contain specific information to show how and when the Contractor is applying the HE test and evaluation guidance of MIL-HDBK-46855A.

6.2.10.3   The HEPP shall identify design milestones at which HE tests are to be performed to assess compatibility among human performance requirements, personnel aptitude and skill requirements, training requirements, and equipment design aspects of personnel equipment and Software interfaces.

6.2.10.4   The HEPP shall identify major V&V objectives and describe the V&V methods to be applied for the HE program.

6.2.11   Human Engineering Working Group

6.2.11.1   Where the SOW requires the Contractor to establish a HE Working Group (HEWG), the HEPP shall include a plan for the HEWG, including:

      a.   objectives and the terms of reference for the HEWG;

      b.   the membership and points of contact for the HEWG; and

      c.   arrangements for the conduct of HEWG meetings.

DATA ITEM DESCRIPTION

1.   **DID NUMBER:**   **DID-ENG-MGT-IRMTP-V5.3**

2.   **TITLE:**   **INTEGRATED RELIABILITY, MAINTAINABILITY AND TESTABILITY PLAN**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The Integrated Reliability, Maintainability and Testability Plan (IRMTP) describes the Contractor's plans, methodologies and processes for meeting the Integrated Reliability, Maintainability and Testability (IRMT) engineering program requirements of the Contract.

3.2   The Contractor uses the IRMTP to:

   a.   define, manage and monitor the IRMT engineering program;

   b.   ensure that those parties performing IRMT engineering program activities understand their responsibilities, the processes to be used, and the time-frames involved; and

   c.   ensure that those parties providing data for the IRMT engineering program understand their respective responsibilities, the data to be provided, and the time-frames for providing that data.

3.3   The Commonwealth uses the IRMTP to:

   a.   understand and evaluate the Contractor's IRMT engineering program; and

   b.   understand the Commonwealth's involvement in the Contractor's IRMT engineering program, including the monitoring of the Contractor's IRMT engineering program.

4.   **INTER-RELATIONSHIPS**

4.1   The IRMTP shall be the single planning and controlling document for all IRMT engineering program activities, and shall have authority over, and give direction to, any subordinate IRMT engineering sub-program plans.

4.2   The IRMTP is subordinate to the following data items, where these data items are required under the Contract:

   a.   Systems Engineering Management Plan (SEMP); and

   b.   Integrated Support Plan (ISP).

4.3   The IRMTP is inter-relates with the following data items, where these data items are required under the Contract:

   a.   Logistic Support Analysis Record (LSAR);

   b.   System Review Plan (SRP);

   c.   Software Management Plan (SWMP);

   d.   Software Support Plan (SWSP); and

   e.   Contract Master Schedule (CMS).

5.   **APPLICABLE DOCUMENTS**

5.1   The following documents form a part of this DID to the extent specified herein:

   Nil.

6.   **PREPARATION INSTRUCTIONS**

6.1   **Generic Format and Content**

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   When the Contract has specified delivery of another data item that contains aspects of the required information, the IRMTP shall summarise these aspects and refer to the other data item.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   IRMTP Introduction

6.2.1.1   The IRMTP shall describe the objectives, scope, constraints, and assumptions associated with the Contractor's IRMT engineering program. Any risks associated with the Contractor's IRMT engineering program shall be documented in the Risk Register; however, the IRMTP shall describe the risk-management strategies associated with any global risks relating to the IRMT engineering program.

6.2.2   IRMT Engineering Program Organisation

6.2.2.1   The IRMTP shall describe the Contractor's IRMT engineering program organisation, including:

a.   the organisational structure (including Approved Subcontractors), showing how organisational and managerial arrangements integrate into the higher-level management structures and organisations;

b.   the interrelationships and lines of authority between all parties involved in the IRMT engineering program; and

c.   the responsibilities of all parties involved, and the identification of the individuals within the Contractor's organisation who will have managerial responsibility and accountability for the IRMT requirements of the Contract.

6.2.3   IRMT Engineering Program Activities, Processes, Products and Standards

6.2.3.1   Activities and Processes

6.2.3.1.1 The IRMTP shall:

a.   identify and outline the activities to be conducted as part of the IRMT engineering program for each level of the Mission System design, including any specific analysis techniques to be employed;

b.   relate the identified IRMT engineering program activities to the specified IRMT engineering program outcomes in the Statement of Work (SOW);

c.   identify, for each activity, the internal Contractor procedures to be used to conduct the identified activities or, where no internal Contractor procedures exist, how this procedural deficiency will be overcome; and

d.   identify, for each activity, the positions within the organisation assigned to perform that activity, and provide an outline of the role of each position in the activity.

6.2.3.2   Standards

6.2.3.2.1 The IRMTP shall identify the standards to be utilised by the Contractor, and Subcontractors, to undertake the IRMT engineering program, including standards pertaining to hardware and software.

6.2.3.2.2 The IRMTP shall describe (within annexes to the IRMTP for each standard), the Contractor's tailoring of the identified standards to meet the IRMT-related requirements of the Contract for both hardware and software, including:

a.   the tasks or processes from each standard to be undertaken, including the rationale for either including or excluding a task or process;

b.   the expected outcomes from each task and/or process to be undertaken;

c.   how the expected outcomes relate to the requirements of the Contract and the Contractor's proposed solutions for the Mission System(s) and Support System;

d.   how the outcomes will be documented/captured;

e.   the data required by the IRMT program from other programs (eg, SE program) to enable the outcomes to be achieved;

f.   the tools to be utilised to undertake the tasks or processes; and

g.   the expected role of the Commonwealth in reviewing the outcomes.

6.2.3.3   Trade Studies

6.2.3.3.1   The IRMTP shall identify:

a.   the trade studies to be conducted as part of the IRMT engineering program,

b.   how the information resulting from trade studies will be utilised, and

c.   where the information resulting from trade studies will be recorded.

6.2.3.4   Design and Analysis Products

6.2.3.4.1   The IRMTP shall identify and describe each of the design and analysis products to be generated from each identified IRMT engineering program activity.

6.2.3.5   Software Reliability, Maintainability and Testability

6.2.3.5.1   The IRMTP shall provide a detailed description of how the Contractor will address Reliability, Maintainability and Testability (RMT) for software.

6.2.3.6   IRMT Engineering Program Modelling and Simulation Tools

6.2.3.6.1   The IRMTP shall describe the RMT modelling and simulation tools to be used by the Contractor (and Subcontractors) to meet the requirements of the RMT program, including:

a.   the relationship between the RMT modelling and simulation tools and the corresponding RMT program activities being supported by the tool;

b.   the interfaces and any data sharing arrangements between each of the RMT modelling and simulation tool and all other tools to be used within the Contract (including other RMT modelling and simulation tools);

c.   the methods for assuring interoperability between the Contractor's RMT modelling and simulation tools and those utilised by Subcontractors and the Commonwealth; and

d.   for each RMT modelling and simulation tool:

(i)   the assumptions underlying the algorithms used,

(ii)   the constraints of the tool,

(iii) the information required to use the tool,

(iv)   the sources of the information to be used as input to the tool,

(v)   how the level of confidence associated with any information required for running the tool will be taken into account, and

(vi)   how the level of confidence associated with the output from the tool will be assessed.

6.2.4   IRMT Engineering Program Data Management

6.2.4.1   Data Sharing

6.2.4.1.1   The IRMTP shall describe the data management system to be used to document, disseminate and share data between the organisations within the IRMT engineering program and between the IRMT organisations and other organisational elements.

6.2.4.2   Logistic Support Analysis Record

6.2.4.2.1   If the Contract requires preparation of a LSAR, the IRMTP shall describe the information generated from the IRMT engineering program to be included in the LSAR.

6.2.4.2.2   If the Contract requires preparation of a LSAR, the IRMTP shall identify the positions of personnel responsible for preparing and maintaining the LSAR and the procedures for compiling and maintaining the LSAR with RMT information.

6.2.4.3   Provision of Data from External Sources

6.2.4.3.1   The IRMTP shall outline the information that the Contractor needs to obtain from external organisations (eg, Subcontractors, the Commonwealth and Associated Parties) to conduct the IRMT engineering program.

6.2.4.3.2   The IRMTP shall identify if arrangements exist for obtaining information from external sources or the arrangements need to be established to obtain that information.

6.2.5   System Reviews

6.2.5.1   The IRMTP shall describe how IRMT engineering program outputs are integrated into System Reviews, cross-referring to the SRP where appropriate.

6.2.5.2   The IRMTP shall outline the procedures for conducting formal and informal reviews of IRMT engineering program outputs.

6.2.6   IRMT Engineering Program Schedule

6.2.6.1   The IRMTP shall include a summary IRMT engineering program schedule as an annex to the IRMTP. The full program schedule shall be included within the CMS.

6.2.7   IRMT Engineering Program Interfaces

6.2.7.1   The IRMTP shall describe the IRMT engineering program analysis and data interfaces with all other programs being conducted as part of the Contract effort.

6.2.7.2   The IRMTP shall describe how RMT-related design requirements are disseminated to designers and associated personnel in other programs.

6.2.8   IRMT Engineering Program Subcontractor Control and Management

6.2.8.1   The IRMTP shall identify all Subcontractors to be involved in the IRMT engineering program and any applicable existing agreements, such as licensing and partnering arrangements, and advise of any new relationships likely to be formed.

6.2.8.2   The IRMTP shall identify the type and scope of work to be performed by each Subcontractor involved in the IRMT engineering program.

6.2.8.3   The IRMTP shall describe the method for allocating IRMT engineering program requirements to Subcontractors and for validating outputs received from Subcontractors.

6.2.9   IRMT Engineering Program Commonwealth Interfaces

6.2.9.1   The IRMTP shall describe the Commonwealth inputs for the IRMT engineering program (eg, meetings, Government Furnished Material, technical assistance, site surveys, etc) and when that input is required. The IRMTP should cross-refer to the appropriate sections in the Contract relating to those Commonwealth inputs.

6.2.9.2   The IRMTP shall identify interfaces between the Contractor and the Commonwealth IRMT organisations. Specific information shall be provided on the position(s) authorised and responsible for communication between the Contractor and the Commonwealth. The position(s) shall be identified in the organisation structure.

DATA ITEM DESCRIPTION

1.   **DID NUMBER:**   **DID-ENG-MGT-MSSMP-V5.3**

2.   **TITLE:**   **MATERIEL SYSTEM SECURITY MANAGEMENT PLAN**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The Materiel System Security Management Plan (MSSMP) describes the Contractor's strategy, methodology, processes and tools for achieving the system security requirements of the Contract, particularly the Security Outcomes, including in relation to each different type of Security Authorisation. System security addresses, as applicable, physical security, Emanation Security (EMSEC), Information and Communications Technology (ICT) security and cyber security as they apply to each Security System-of-Interest (SSoI) (eg, the Mission System). For ICT/cyber security, this includes the Digitally Enabled Systems and Equipment (DESE) within each SSoI.

3.2   The Contractor uses the MSSMP to:

a.   define, manage and monitor the Contractor's system security and related activities under the Contract;

b.   describe how the objectives of, and requirements for, the system security program set out in the SOW will be achieved for each SSoI;

c.   ensure that those parties (including the Commonwealth and Subcontractors) performing system security activities understand their respective responsibilities, the processes to be used, and the time-frames involved; and

d.   ensure that risks to achieving the system security requirements are recognised and appropriately managed for all SSoIs.

3.3   The Commonwealth uses the MSSMP to:

a.   understand and evaluate the security-related design and management processes used by the Contractor, including in relation to design trade-offs both within and between SSoIs;

b.   assist with ensuring consistency and coherency across the system security program for the set of SSoIs;

c.   gain assurance that the Contractor's design activities will satisfy the objectives of the system security program set out in the SOW and deliver Supplies that meet the system security requirements and enable the required Security Authorisations to be achieved;

d.   provide a basis to monitor the progress of the development of the security design for a SSoI against the planned schedule;

e.   help to identify issues of concern that could prevent the achievement of the required performance in relation to system security for a SSoI, and which need to be raised with the Contractor; and

f.   as an input into the Commonwealth's own planning, particularly in relation to liaising with the applicable Security Authorisation authorities.

4.   **INTER-RELATIONSHIPS**

4.1   The MSSMP is subordinate to the following data items, where these data items are required under the Contract:

a.   Systems Engineering Management Plan (SEMP);

b.   Integrated Support Plan (ISP);

c.   Configuration Management Plan (CMP); and

      d.   Quality Plan.

4.2   The MSSMP inter-relates with the following data items, where these data items are required under the Contract:

      a.   System Specification (SS) (for each different type of Mission System);

      b.   Support System Specification (SSSPEC);

      c.   System Architecture Description (SAD);

      d.   the security-related data items required under the Contract (other than those identified under clause 4.1);

      e.   the Software-related data items required under the Contract;

      f.   Mission System Technical Documentation Tree (MSTDT);

      g.   Support System Technical Data List (SSTDL);

      h.   ADF regulatory / assurance plans;

      i.   Certification Plan (CERTP);

      j.   Electromagnetic Environmental Effects Management Plan (E3MP);

      k.   System Safety Program Plan (SSPP);

      l.   Disposal Plan (DISP);

      m.   Verification and Validation Plan (V&VP); and

      n.   Verification Cross Reference Matrix (VCRM).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

Note to drafters: Amend the list of Applicable Documents to suit the Contract. Do not include documents that are included within the 'Governing Security Documents'.

Governing Security Documents	(see the Glossary for the definition of this term)
ANP4605	Navy Cyberworthiness
AFSMAN	Air Force Security Manual, Volume 1
	National Institute of Standards and Technology (NIST), 'Cybersecurity Framework (CSF)', Version 2.0, February 26, 2024
AS/NZS ISO 31000:2018	Risk Management – Principles and Guidelines
NIST SP 800-30	Guide for Conducting Risk Assessments, Revision 1, September 2012
NIST SP 800-37	Risk Management Framework for Information Systems and Organizations: A System Life Cycle Approach for Security and Privacy, Revision 2, December 2018
NIST SP 800-53A	Assessing Security and Privacy Controls in Information Systems and Organizations, Revision 5, January 2022
	ACSC Publication, 'Strategies to Mitigate Cyber Security Incidents', February 2017
	ACSC Publication, 'Strategies to Mitigate Cyber Security Incidents – Mitigation Details', February 2017
ISO/IEC 27001:2022	Information security, cybersecurity and privacy protection – Information security management systems – Requirements
ISO/IEC 27032:2023	Cybersecurity – Guidelines for internet security

ISA/IEC 62443 series	Security for Industrial Automation and Control Systems
ISO/IEC 27005:2022	Information security, cybersecurity and privacy protection – Guidance on managing information security risks
Defence ICT/Cyber SCRM Framework	The Defence ICT/Cyber Procurement Supply Chain Risk Management Framework, October 2020
	CASG Risk Management Product Risk Matrix

6. PREPARATION INSTRUCTIONS

6.1 Generic Format and Content

6.1.1 The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2 When the Contract has specified delivery of another data item that contains aspects of the required information, the MSSMP should summarise these aspects and refer to the other data item.

6.1.3 The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2 Specific Content

6.2.1 Overview

6.2.1.1 The MSSMP shall provide an overview of the Contractor's system security program for the Contract, including:

    a. defining the scope and purpose of the MSSMP, including:

        (i) summarising the system security requirements of the SOW, including setting out the objectives of the system security program and identifying the requirements for the different types of Security Authorisations; and

        (ii) describing the relationships to higher-level plans (eg, the plans identified at clause 4.1) and to relevant plans at the same level (eg, management plans for interfacing domains);

    b. identifying and describing the nature and significance of the security risks and threats that will be managed through the MSSMP; and

    c. describing any constraints, assumptions and risks associated with the program.

6.2.1.2 The MSSMP shall provide a list of key stakeholders involved with the Contractor's system security program, including:

    a. System Owner;

    b. security requirements authorities;

    c. Security Authorisation authorities; and

    d. for projects involving integration into, or installation onto, Defence systems and platforms, the in-service agencies responsible for managing and supporting those systems and platforms.

Note: In responding to the following clause, the Contractor's attention is drawn to the definitions of 'Security System of Interest' and 'Target of Security Assessment' set out in the Glossary, including the relationships between them.

6.2.1.3 The MSSMP shall provide an overview of each SSoI, including:

    a. identifying the Targets of Security Assessment (ToSAs) within each SSoI where applicable;

    b. identifying where ICT security and/or cyber security are applicable to the SSoI; and

    c. identifying and briefly describing any significant items of DESE from an ICT security or cyber security perspective.

Note: In responding to the following clause, the Contractor may propose a set of ICT/cyber security-related data items, which are mapped to the identified ToSAs. For the different SSoIs and the ToSAs within larger Mission Systems (eg, aircraft or ship), it may be more appropriate to develop and deliver the required ICT/cyber security documentation progressively as long as the overall requirement in the CDRL for each data item is achieved.

6.2.1.4 The MSSMP shall provide the Contractor's mapping of the security-related data items in the CDRL to the SSoIs and ToSAs, showing how the data item requirements in the CDRL will be met.

6.2.2 Requirements

6.2.2.1 The MSSMP shall provide an overview of the technical requirements that must be met in relation to system security for each SSoI/ToSA (eg, as set out in Legislation, the Governing Security Documents and the FPS and/or each Mission System SS and the SSSPEC) and any inter-relationships with relevant Defence and government policies.

6.2.3 Organisation and Communication

6.2.3.1 The MSSMP shall describe the system security organisation(s) within the Contractor's overall organisation, including:

a. details of the Contractor's security team that is dedicated to the Contract, including numbers and skills;

b. specifically in relation to ICT/cyber security, how the necessary skills will be identified, obtained and retained over the period of the Contract;

c. a description of the relationships to any other areas within the Contractor's organisation that are involved with or support the Contractor's system security program; and

d. whether or not Subcontractors will be incorporated into the program and, if so, the details of the Subcontractors, including the nature and scope of the work to be undertaken.

6.2.3.2 The MSSMP shall describe any Integrated Product Team (IPT) arrangements for the Contractor's system security program, including membership, leadership and terms of reference.

6.2.3.3 The MSSMP shall describe how the Contractor will work with Subcontractors to ensure that they provide goods that are suitable to meet the security requirements of the Contract.

6.2.4 Security Risk Management

6.2.4.1 The MSSMP shall describe the risk management processes to be applied to the Contractor's system security program, cross-referring to the risk-management elements of the Approved Project Management Plan (PMP) and the applicable elements of the Approved ADF regulatory / assurance plans as appropriate, including:

a. the processes to be used to identify system security risks, including:

(i) conducting a security threat and risk assessment, including in relation to any classified threats associated with the operation and support of the SSoIs;

(ii) if a SAD is required under the Contract, utilising the system architecture modelling processes and practices;

(iii) undertaking specific activities in relation to ICT/cyber security, such as performing threat modelling, penetration testing, and mapping the cyber attack and engagement surfaces; and

(iv) ensuring that the set of security-related risks remains current, particularly in relation to ICT/cyber security;

Note to drafters: *The following clause refers to the CASG Risk Management Product Matrix, which is identified as an Applicable Document in clause 5. This enables a 5x5 matrix to be employed for the purposes of project or product risk management using the Predict! tool. The Security Authorisation process, however, requires the use of a 6x6 matrix in accordance with the DSPF. Drafters should amend the following clause and the Applicable Documents to suit their contract-management circumstances (ie, to select the risk matrix that will result in the least*

work for the contract-management team, either translating into the DSPF 6x6 matrix if the CASG matrix is retained, or translating into Predict! if the following clause is amended to incorporate the DSPF matrix).

b.　the processes to be used for analysing, assessing and evaluating system security risks, including the specific assessment criteria to be used, cross-referring to the CASG Risk Management Product Risk Matrix in relation to assessing risks to 'Security & Cyber';

c.　the risk register(s) to be used for recording each system security risk (eg, SRMP), including its attributes, evaluation and treatment(s);

d.　the processes to be used to determine the specific risk treatment strategies to be employed, particularly the application of risk controls (eg, as per the ISM and other applicable standards for ICT/cyber security); and

e.　the mechanisms to be used to keep the Commonwealth apprised of system security risks.

6.2.5　System Security Design Processes

6.2.5.1　The MSSMP shall describe the Contractor's design processes for achieving the security requirements of the Contract, including:

a.　the strategy and methodology to meet the system security objectives defined in the SOW and satisfy the security requirements of the Contract, including as set out in the relevant specifications (eg, FPS/SS/SSSPEC) for each SSoI;

b.　the outcomes to be achieved and the expected level of design maturity at each of the Mandated System Review (MSRs), where MSRs are applicable to a SSoI;

c.　the documentation to be produced during each stage of development for each SSoI/ToSA and each security domain, cross-referring to the response to clause 6.2.1.4 and the MSTDT and/or SSTDL, as appropriate;

d.　the approach, methods, and activities to synthesise security into the design solution for each SSoI/ToSA (for system architecture, Software and hardware), including:

　　(i)　utilisation of system architecture modelling activities, including co-ordination with the Commonwealth through the SAD;

　　(ii)　analysis of threats and vulnerabilities;

　　(iii)　implementation of system security controls and response mechanisms;

　　(iv)　the application of design criteria, including the selected security strategies governing the use of Commercial-Off-The-Shelf (COTS), developmental and non-developmental items (particularly DESE), open systems architecture and re-use technologies;

　　(v)　for Software (including firmware), the utilisation of secure systems development processes and practices (eg, reducing attack surfaces, securing code, testing code for vulnerabilities, Cyber Supply Chain considerations, and application of the Contractor's Quality Management System (QMS) to provide assurance);

　　(vi)　the considerations to be taken into account to achieve end-to-end system security;

　　(vii)　continuous review of threats and vulnerabilities; and

　　(viii)　implementation of updates and control;

e.　interfaces and interdependencies with other design activities for each SSoI/ToSA; and

f.　for the Mission System only (including, where applicable, each ToSA within the Mission System), the identification and resolution of any whole-of-system system security-related risks, Issues and opportunities, including managing trade-offs between the various specialty engineering domain requirements.

Note: In relation to the NIST Special Publication references identified in clause 5.1, the MSSMP should be developed from the latest versions of these documents, except where otherwise agreed by the Commonwealth Representative.

6.2.5.2   The MSSMP shall identify all reference documents that will be used in the development of the security design for each SSoI/ToSA, including applicable security standards, policies, supporting technical documentation and guidance, including to the extent applicable, the documents identified at clause 5.1.

6.2.5.3   The MSSMP shall describe, in annexes to the MSSMP, the tailoring of the identified standards to meet the security requirements of the Contract, including:

   a.   the activities or processes from each standard to be undertaken, including the rationale for including and tailoring or excluding an activity or process;

   b.   the data required, including from related programs (eg, Systems Engineering program, Electromagnetic Environmental Effects (E3) program or system safety program), to perform the identified analysis activities / processes;

   c.   the expected outcomes associated with undertaking each activity or process;

   d.   how the outcomes relate to the requirements of the Contract and the Contractor's proposed solutions for each SSoI/ToSA;

   e.   how the outcomes will be documented;

   f.   the tools to be utilised to undertake each activity or process; and

   g.   the expected role of the Commonwealth in reviewing the outcomes.

6.2.6   **System Security and Support**

6.2.6.1   The MSSMP shall describe any unique aspects of the Contractor's system security program relating to the Support System that are not addressed through the other clauses in this DID, including (for example):

   a.   how security requirements will be incorporated into the Contractor's Cyber Supply Chains to address ICT/cyber security risks for DESE, cross-referring to any Cyber Supply Chain Risk Plan (CSCRP) required under the Contract and describing how the Cyber Supply Chain risk assessments will be kept current and the Commonwealth will be kept apprised of changed circumstances, as new items of DESE for the SSoIs are identified;

   b.   the security requirements for support-related equipment (eg, Support and Test Equipment (S&TE), Training Equipment, and Facilities equipment and ICT systems);

   c.   operational security requirements for all phases of the life of the Mission System up to and including disposal; and

   d.   considerations in relation to system security monitoring and Maintenance, including for ICT/cyber security:

      (i)   countermeasures against malicious code;

      (ii)   intrusion detection strategies and detection mechanisms;

      (iii)   audit and event log analysis and alerting;

      (iv)   system integrity checking (system characterisation);

      (v)   vulnerability monitoring, assessments and patching;

      (vi)   periodic revalidation of security controls;

      (vii)   user access management;

      (viii) periodic audit of intrusion detection procedures;

      (ix)   systematic user Training and awareness programs; and

      (x)   maintaining the currency of authorised Training packages and Security Standard Operating Procedures (SSOPs).

6.2.7   Security Authorisations and Verification & Validation

6.2.7.1   The MSSMP shall explain the approach to achieving the required Security Authorisations for each SSoI/ToSA in accordance with the Contract, the Governing Security Documents, CERTP (if applicable), and other applicable documents identified at clause 5.1, including:

a.   explaining the approach to be used for each of the different Security Authorisations required for physical security, EMSEC, ICT security and cyber security for each SSoI/ToSA, as applicable, including identifying the Objective Evidence to be provided to support the achievement of these authorisations;

b.   describing how the Contractor will engage with the relevant Security Authorisation authorities, and the roles and responsibilities of the different stakeholders, including the stakeholder identified in accordance with clause 6.2.1.2; and

c.   describing any circumstances where a particular Security Authorisation (eg, for ICT security) is a necessary precursor to the conduct of any aspect of AV&V.

6.2.7.2   The MSSMP shall explain the approach to conducting Verification and Validation (V&V) of the security requirements of the Contract for each SSoI/ToSA, cross-referring to the applicable V&V and/or assurance data items identified at clause 4.2 as appropriate, including:

a.   evaluation of delivered systems and equipment, including in relation to:

(i)   mapping of cyber attack and engagement surfaces;

(ii)   the confidentiality, integrity and availability of systems and data; and

(iii)   the ability to adapt to disruptions caused by cyber security incidents while maintaining continuous business operations, including the ability to detect, manage and recover from cyber security incidents;

b.   how the proposed V&V supports the security assurance processes and requirements set out in the Contract and applicable data items, such as the CERTP;

c.   how the effectiveness of security controls will be demonstrated, including the identification of any Certification and Accreditation requirements for software, security devices or other special security features; and

d.   the evidence that will be collected and provided to the Commonwealth to provide confidence that the security requirements for each SSoI/ToSA will be met.

6.2.8   System Security Tools

6.2.8.1   The MSSMP shall describe any simulation and other tools, instruments, items of equipment, test facilities and any other major elements that will be required to define, design, develop, implement, Certify, Accredit, Verify and Validate the security requirements of the Contract, including in relation to each SSoI/ToSA.

6.2.9   System Security Schedule

6.2.9.1   The MSSMP shall contain a summary of the system security schedule, which identifies key activities, events and milestones for the system security program for the Contract, including for the different types of Security Authorisations for each SSoI/ToSA.

6.2.9.2   The full system security program schedule shall be included in the CMS.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ENG-MGT-SEMP-V5.3

2.   TITLE: SYSTEMS ENGINEERING MANAGEMENT PLAN

3.   DESCRIPTION AND INTENDED USE

3.1   The Systems Engineering Management Plan (SEMP) describes the Contractor's strategy, plans, methodologies and processes for the management of a fully integrated engineering program in accordance with the Contract. The SEMP describes the relationships between concurrent activities as well as between sequential activities to demonstrate that a fully integrated engineering program has been achieved.

3.2   The Contractor uses the SEMP to provide the primary direction and guidance to the technical team responsible for conducting the scope of work.

3.3   The Commonwealth uses the SEMP as a benchmark against which Contractor performance and changes in risk can be evaluated.

4.   INTER-RELATIONSHIPS

4.1   The SEMP shall be consistent with, and subordinate to, the Project Management Plan (PMP).

4.2   The SEMP shall be the single planning and controlling document for all engineering program activities and related efforts, and shall have authority over, and give direction to, any subordinate engineering plans.

4.3   The SEMP inter-relates with the following data items, where these data items are required under the Contract:

a.   Integrated Support Plan (ISP);

b.   Configuration Management Plan (CMP);

c.   Verification and Validation Plan (V&VP); and

d.   Quality Plan (QP).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

ANSI/EIA-632-2003	Processes for Engineering an System
AS/NZS ISO/IEC/IEE 12207:2019	*Systems and Software Engineering - Software life cycle processes*
	The specialty engineering standards identified in the SOW (eg, in relation to system safety, system security and Electromagnetic Environmental Effects (E3))

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   When the Contract has specified delivery of another data item that contains aspects of the required information, the SEMP should summarise these aspects and refer to the other data item.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   Technical Plan Summary

6.2.1.1   The SEMP shall describe the objectives, scope, constraints, and assumptions associated with the Contractor's systems engineering program.

6.2.1.2   Risks associated with the Contractor's systems engineering program, including risks associated with the development and implementation of the required products shall be documented in the Risk Register; however, the SEMP shall describe the risk-management strategies associated with any global risks related to the systems engineering program.

6.2.1.3   The SEMP shall define its relationship to other planning documentation, including subordinate engineering plans and key non-technical plans such as the PMP.

6.2.1.4   The SEMP shall define the scope and purpose of subordinate engineering plans, including the interrelationships between subordinate plans.

6.2.2   Systems Engineering Key Activities

6.2.2.1   The SEMP shall describe the Contract technical objectives, with reference to the proposed solution and with particular emphasis on the technical products to be delivered and the extent of development required for them.

6.2.2.2   The SEMP shall identify the key engineering elements and events of the Contract, including the key events in the lifecycle of each product in the design hierarchy, the interrelationships between them, and those significant engineering events within the Contract schedule.

6.2.3   Engineering Management

6.2.3.1   The SEMP shall define the engineering organisation for the Contract, including the key engineering positions and the partitioning of engineering effort between the various Contractor and Subcontractor organisations.

6.2.3.2   The SEMP shall describe how technical effort will be coordinated to meet cost, schedule and performance objectives.

6.2.3.3   The SEMP shall summarise planned personnel needs, applicable to the various phases of the Contract, by discipline and level of expertise.

6.2.4   Subcontractor Management

6.2.4.1   The SEMP shall define how all work conducted by Subcontractors shall be scoped, managed and monitored to ensure that the Contract objectives are met.

6.2.4.2   The SEMP shall define how and at what stages, Subcontractor documentation will be developed, controlled and integrated into the overall Contract documentation.

6.2.4.3   The SEMP shall describe the systems engineering role in selection and control of Subcontractors.

6.2.5   Contract Work Breakdown Structure

6.2.5.1   The SEMP shall describe the role of systems engineering in the development and implementation of a product-based Contract Work Breakdown Structure (CWBS) including its relationship to the specification tree.

6.2.6   Systems Engineering Process

6.2.6.1   The SEMP shall define the tailored application of the Contractor's Systems Engineering process to the activities of the Contract, including:

    a.   the major products and/or increments to be delivered;

    b.   the major outcomes to be achieved;

    c.   the major Systems Engineering tools that will be used for the Contract, and identification of requirements for Configuration Management and control of the tool data;

    d.   the integration of Software engineering activities with the systems engineering activities; and

e.   the program and integration of the effort of specialty disciplines including reliability, maintainability and testability, survivability, Electromagnetic Environment Effects, Human Engineering, Materiel Safety, system security, Supportability and transportability.

6.2.7   Engineering Documentation

6.2.7.1   The SEMP shall describe the methods for documentation and control of engineering and technical information, including expected specifications and Configuration Baselines.

6.2.7.2   The SEMP shall describe implementation, accessibility, and maintenance of the Engineering Information System.

6.2.7.3   The SEMP shall identify the critical information and its sources needed to accomplish the objectives of the systems engineering process.

6.2.8   Requirements Analysis

6.2.8.1   The SEMP shall describe the methods and tools for analysis and validation of system requirements, including consideration or determination of:

a.   missions and operational environment;

b.   functional and performance requirements for development, manufacturing, verification, deployment, operations, support, training, and disposal; and

c.   constraints, including specialty engineering areas.

6.2.9   Logical Solution Representations

6.2.9.1   The SEMP shall describe the methods and tools used to develop Logical Solution Representations of the system behaviour and structure.

Note: As described in EIA-632, Logical Solution Representations include Functional Flow Block Diagrams, Structured Analysis models, Use Case models, etc.

6.2.9.2   The SEMP shall describe how these Logical Solution Representations are traced from the system requirements and how they trace to the proposed solution of people, products and processes.

6.2.9.3   The SEMP shall describe the role of these Logical Solution Representations in the systems engineering process, the maturity of the Logical Solution Representations at each phase and increment and the proposed interaction with the Commonwealth in validating the Logical Solution Representations.

6.2.10   Synthesis

6.2.10.1   The SEMP shall describe the approach, methods, procedures, and tools to synthesise the design solution, including:

a.   the selected strategies governing the use of Commercial-Off-The-Shelf, non-developmental items, open systems architecture and re-use technologies;

b.   the approach to be employed to select parts and materials to meet system requirements and to manage standardisation and obsolescence;

c.   the approach to be employed in identifying Long Lead Time Items (ie, needed for development) and resources that affect the critical path of the Contract; and

d.   the criteria for assessing and transitioning technologies, including technologies from technology development and demonstration programs.

6.2.11   Implementation and System Integration

6.2.11.1   The SEMP shall describe the approach for technology verification, process proofing, manufacturing of engineering test articles, test and evaluation, adaptation and re-use of Software.

6.2.11.2   The SEMP shall describe the approach for the integration and assembly of the system.

6.2.12   Verification and Validation Planning

6.2.12.1   The SEMP shall describe the Contract Verification and Validation (V&V) strategy.

6.2.13   **Systems Analysis and Control**

6.2.13.1   The SEMP shall describe the approach, methods, procedures, and tools to be used for systems analysis and control, including:

  a.   the approach to establish and maintain requirements traceability between systems products and design data including the use of any specific tools;

  b.   the approach for establishing, maintaining, and reporting results of Technical Performance Measures that are responsive to requirements and technical parameters identified in the Contract;

  c.   the methods to conduct trade studies, any pre-planned trade studies and necessary source data;

  d.   the expected use of any system performance models, in particular those that may be used as part of the Acceptance V&V;

  e.   a description of the system and cost effectiveness analysis effort and its role as an integral part of the systems engineering process; and

  f.   the integration of Mission System and Support System development, including the relationship between the engineering and integrated logistics support activities.

6.2.14   **Technical Risk Management**

6.2.14.1   The SEMP shall describe the risk management program and identify any special consideration of risks as part of the engineering program (eg, prototyping and model development).

6.2.15   **Configuration Management**

6.2.15.1   The SEMP shall describe the approach planned to establish and maintain Configuration Control of identified system products and processes.

6.2.15.2   The SEMP shall include a description of the approach planned to establish and maintain control of external and internal interfaces, including the conduct of Interface Control Working Groups (ICWGs).

6.2.16   **System Reviews**

6.2.16.1   The SEMP shall describe the approach planned to establish and conduct engineering related System Reviews (ie, Mandated System Reviews and Internal System Reviews) necessary for the effective conduct of the engineering program.

6.2.16.2   The SEMP shall describe the objectives for each review and the relationship of each review to other engineering program activities.

6.2.17   **Traceability to EIA-632**

6.2.17.1   The SEMP shall define, in a traceability matrix from each requirement to section(s) within the SEMP, how each requirement of EIA-632 is addressed from the perspective of the Contractor as a supplier to the Commonwealth and as an acquirer of goods and services from Subcontractors.

6.2.17.2   Where the Contractor proposes tailoring an EIA-632 requirement for the Contract, the matrix shall identify the tailoring and its justification.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ENG-MGT-SINTP-V5.3

2.   TITLE: SYSTEM INTEGRATION PLAN

3.   DESCRIPTION AND INTENDED USE

3.1   The System Integration Plan (SINTP) describes the Contractor's strategy, plans, methodologies and processes for undertaking system integration in order to meet the requirements of the Contract. For the purposes of the SINTP, system integration includes those activities necessary to:

  a.   to synthesise a set of system elements into a Mission System that satisfies the system requirements (ie, the Mission System Functional Baseline (FBL)), architecture and design; and

  b.   integrate the Mission System with external systems (including, if applicable, as part of platform integration and/or site integration) so that the Mission System and the external systems interface with each other and interoperate in a manner that satisfies the Mission System FBL when the Mission System is operated and supported in accordance with the Operational Concept Document (OCD).

3.2   The Contractor uses the SINTP to record the plan for the integration process, aligned with the maturity of the design of the Mission System, that:

  a.   demonstrates a coherent and well-founded program of integration activities that can effectively manage risk;

  b.   identifies the organisations (including Subcontractors) that are undertaking system integration activities, their role and scope of work, and respective responsibilities;

  c.   describes the systems and processes to be used for undertaking system integration;

  d.   identifies the system integration activities to be executed in each phase of the Contract, with particular attention to early preparation and planning activities; and

  e.   describes the Integration System that provides the physical and support capabilities for integrating and Verifying the system.

3.3   The Commonwealth uses the SINTP to:

  a.   understand and evaluate the Contractor's plans for system integration;

  b.   gain visibility into the plans for the Contractor's integration activities and design of the associated Integration System;

  c.   understand the Commonwealth's role in the integration process, particularly the elements to be delivered by the Commonwealth (eg, Government Furnished Equipment (GFE) and Government Furnished Services (GFS)) that enable the integration process; and

  d.   assist with the identification of risks that require Commonwealth action.

3.4   For the purposes of this DID, *Integration System* means the physical and support capabilities necessary for integrating and Verifying the system, including:

  a.   simulators, stimulators, laboratory equipment and test tools necessary to perform the system integration operations;

  b.   one or more parallel test lines (ie, replicated Mission System equipment) necessary to meet Contract schedule requirements; and

  c.   all physical facilities, plant, equipment and support services such as floor space, power, air conditioning, communications and security.

4.   INTER-RELATIONSHIPS

4.1   The SINTP is subordinate to the following data items, where these data items are required under the Contract:

     a.   Project Management Plan (PMP); and

     b.   System Engineering Management Plan (SEMP).

4.2   The SINTP inter-relates with the following data items, where these data items are required under the Contract:

     a.   System Review Plan (SRP);

     b.   Verification and Validation Plan (V&VP);

     c.   Integrated Support Plan (ISP); and

     d.   Software Management Plan (SWMP).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

     Nil

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   When the Contract has specified delivery of another data item that contains aspects of the required information, the SINTP should summarise these aspects and refer to the other data item.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   System Integration Overview

6.2.1.1   The SINTP shall provide:

     a.   an overview of the Contractor's design for the Mission System, particularly focussing on those aspects of the solution that lead to integration requirements;

     b.   a list of the major system integration milestones;

     c.   an overview of the system integration key factors, including:

          (i)   the key design drivers;

          (ii)   any assumptions underpinning the design decisions;

          (iii)   any constraints or limitations with the design, including any integration constraints that influence system requirements, architecture, or design, including interfaces; and

          (iv)   any elements of the Integration System that may transition to the Support System; and

     d.   a description of the various strategies that the Contractor will use to mitigate system integration risks (eg, early integration activities, early evaluation of GFE/GFS, use of test beds, and use of simulation and/or stimulation).

6.2.1.2   The SINTP shall provide an overview of the system integration activities for the Contract, including:

     a.   the activities to be conducted in preparation for conducting system integration, including planning, design, scheduling, execution, and the establishment of tools and facilities as part of the Integration Systems necessary to ensure that the independently developed parts can be successfully assembled;

     b.   the system integration activities for the Mission System to:

       (i)   successively combine system elements to form complete or partial system configurations in an appropriate integration environment;

       (ii)   successively combine system elements with external systems (or elements or representations of those external systems) in an appropriate integration environment to ensure that the Mission System will interface with and, if required, interoperate with the external systems, as envisaged under the Contract, including (if applicable) for the purposes of platform integration and site integration;

       (iii)   progressively validate that the design solution will meet its design intent, and gain confidence that it will satisfy user needs and meet the requirements of the Mission System FBL; and

       (iv)   ensure that the design solution is at a state where Acceptance Verification can be expected to pass with a minimum of difficulty; and

c.   the activities of the integration team in supporting the conduct of system-level Acceptance Verification to make certain everything runs as intended and issues are resolved as quickly as possible.

6.2.2 System Integration Organisation

6.2.2.1 The SINTP shall describe the organisational roles, relationships and divisions of responsibility between the respective organisations that either will be, or are envisaged to be, providing system integration expertise, specifically identifying:

a.   the roles and responsibilities of the Contractor and Subcontractors; and

b.   the roles and responsibilities of the key staff involved in systems integration, including those staff from the Contractor, Approved Subcontractors, and the Original Equipment Manufacturers (OEMs) for the Mission System, its major subsystems, and significant system integration components.

6.2.2.2 The SINTP shall describe the Contractor's teaming arrangements (eg, Integrated Product Team (IPT)) for achieving the system integration requirements, including a description of the relationships with Contractor internal teams, Subcontractor teams, and other Commonwealth teams (eg, hardware and software development teams and Verification and Validation (V&V) teams).

6.2.2.3 The SINTP shall describe the envisaged Commonwealth responsibilities and any assumptions in regard to the role of the Commonwealth in relation to system integration.

6.2.3 Integration System

6.2.3.1 The SINTP shall describe the Integration System that provides the physical and support capabilities for integrating and Verifying the system, including:

a.   the process for its definition;

b.   its basis of provisioning;

c.   its design and content, including any major developmental or critical components;

d.   the timing of its implementation and use with respect to other project milestones and activities; and

e.   the proposed future use of all or part of the Integration System as part of the Support System.

6.2.3.2 The SINTP shall describe the interfaces between the Mission System and the Integration System, particularly addressing the interfaces that are key to mitigating the risks arising out of system integration.

6.2.4 System Integration Details

6.2.4.1 The SINTP shall describe the succession of builds and/or increments for implementing the Mission System, including the orchestration of the order of development and delivery of each element (ie, hardware, software or aggregation), simulation / stimulation elements, and test equipment.

6.2.4.2   The SINTP shall describe the processes and activities for assembly of the Mission System that:

a.   are consistent with the architectural design;

b.   successively combine pairs or groups of system elements to form complete or partial system configurations in an appropriate integration environment;

c.   progressively validate that the design solution will meet its design goals, and gain a level of confidence that the design solution will satisfy user needs and meet the requirements of the Mission System FBL; and

d.   ensure the design solution is at a state where Acceptance Verification can be expected to pass with a minimum of difficulty.

6.2.4.3   The SINTP shall describe the process and activities for integrating the Mission System with any required external systems (including, if applicable, for the purposes of platform integration and/or site integration), including, in relation to external interfaces:

a.   identifying those interfaces where the associated standards or technology are still in the process of development, including describing the associated strategies for managing and implementing these interfaces;

b.   identifying any high-risk interfaces, including describing the associated risk-mitigation strategies for developing and implementing these interfaces;

c.   describing the means and processes of controlling and managing changes to interface requirements and associated design, which may affect compatibility with other systems and equipment, including the establishment and conduct of Interface Control Working Groups (ICWGs) with Subcontractors, the Commonwealth and Associated Parties; and

d.   describing the relationship between the Contractor's activities for interface management and those of the Commonwealth, and other parties, including requirements for Commonwealth participation, and the provision of specific Government Furnished Material (GFM), Government Furnished Facilities (GFF), and GFS.

6.2.4.4   The SINTP shall define the system-integration activities performed for the Mission System necessary to:

a.   install the hardware and software elements;

b.   verify that the installation of each new element is satisfactory to proceed;

c.   generate and maintain a 'system integration work flow matrix' that lists all system operation and design elements that need to be validated during integration and the necessary sequence of these, including as applicable:

(i)   testing to be performed on each OEM component or other standalone component to be evaluated prior to integration;

(ii)   set up and start up for each item under test (ie, each component, interface, group of items or integrated system being tested);

(iii) the configuration of, and the states and modes for, each item under test;

(iv)   the pairwise integration of components, including expected interface checks and function and performance checks;

(v)   group-level integration of components, including interface, functional thread and function and performance checks;

(vi)   system-level integration, including, as applicable, the function and performance of concurrent and parallel operations, group interactions, normal and high-load operations and longevity testing; and

(vii) system-of-system-level integration, including, as applicable, the function and performance of the system when operating with the external systems, system capacity testing, and exercising of failure modes for the system and the external systems;

d.   exercise the system in such a manner to:

(i)   discover all security vulnerabilities, errors and omissions associated with expected system design behaviour and performance (eg, using integration procedures for design validation), including, where applicable, when the system is integrated with external systems;

(ii) discover all errors and omissions associated with the Verification of system requirements (eg, using modified procedures that balance efficiency and confidence in future verification activities);

(iii) confirm that human-system interfaces and Training procedures are correct;

(iv) confirm that it will meet the user needs and scenarios consistent with the OCD (eg, checking threads of expected end-to-end system use that align with the OCD, for example that a "day in the life" procedure exercises properly);

(v)   confirm useability with user participation;

(vi) ensure that Security Authorisations are maintained throughout the system integration activities; and

(vii) with V&V personnel, confirm that the system will be ready for Acceptance Verification with low risk of change;

e.   track all errors and omissions to closure;

f.   generate and monitor and schedule the design changes necessary to correct the errors and omissions; and

g.   perform regression testing, as necessary.

6.2.5   System Increment Integration Details

6.2.5.1   The SINTP shall describe the following, including for each integration build / increment (as applicable) leading up to the final assembly and evaluation of the system:

a.   software and hardware items included in the build / increment;

b.   system-under-test diagrams, showing the fractional part of the system being integrated and subject to test;

c.   system capabilities included in the build / increment;

d.   system functional threads addressed by the build / increment;

e.   any requirements that may be Verified in the build / increment;

f.   interfaces and messages to be validated in the build / increment;

g.   all required GFE and GFS needed to support the activity;

h.   required integration tools; and

i.   the integration objectives for the build/increment against the categories of:

(i)   installation and checkout;

(ii)   duration/stability evaluation;

(iii) functionality evaluation;

(iv)   performance evaluation;

(v)   availability evaluation;

(vi)   functional thread assessment;

(vii) operational procedures to be executed;

(viii) Training Materials, to be validated to confirm that they are ready for use;

(ix)   regression testing; and

(x)   transition to Acceptance Verification.

6.2.6   System Integration Monitoring and Control

6.2.6.1   The SINTP shall describe the monitoring and control mechanisms to be implemented by the Contractor to ensure that the system integration activities are progressing appropriately against the plan, including:

a.   the integration measurement data to be collected, analysed and reported by the Contractor, including the integration measures to be applied to Approved Subcontractors; and

b.   the tolerances to be applied to the key integration measures, including in relation to the Approved Subcontractors.

6.2.6.2   The SINTP shall describe the how visibility of the Contractor's integration activities, including progress against the plan, will be provided to the Commonwealth, including at Mandated System Reviews and Internal System Reviews.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ENG-MGT-SIP-V5.3

2.   TITLE: SITE INSTALLATION PLAN

3.   DESCRIPTION AND INTENDED USE

3.1   The Site Installation Plan (SIP) describes the Contractor's strategy, methodology and plans for undertaking site installation activities at all of the Commonwealth Premises, including facilities where installation of Mission System elements or Support System Components (or both) is required. The SIP includes the Contractor's plans for integrating its activities with those of the Commonwealth (or other party) at these installation sites.

3.2   The Contractor uses the SIP to:

a.   define, manage and monitor its activities at the installation sites;

b.   plan and co-ordinate its involvement with the Commonwealth's (or other parties') activities at these sites; and

c.   ensure that those parties (including Subcontractors) working at the installation sites understand their respective responsibilities, the processes to be used, and the time frames involved.

3.3   The Commonwealth uses the SIP to:

a.   understand and evaluate the Contractor's requirements for installing Mission System elements or Support System Components (or both) at the installation sites;

b.   identify and understand the Commonwealth's involvement in the Contractor's activities, including the monitoring of the Contractor's activities; and

c.   provide input to the Commonwealth's own planning (eg, in relation to site preparation and co-ordination with other Commonwealth organisations).

4.   INTER-RELATIONSHIPS

4.1   The SIP is subordinate to the following data items, where these data items are required under the Contract:

a.   Project Management Plan (PMP);

b.   System Engineering Management Plan (SEMP); and

c.   Integrated Support Plan (ISP).

4.2   The SIP inter-relates with the following data items, where these data items are required under the Contract:

a.   Contractor Transition Plan (CTXP);

b.   Facilities Requirements Analysis Report (FRAR);

c.   System Integration Plan (SINTP);

d.   Verification and Validation Plan (V&VP); and

e.   Contract Master Schedule (CMS).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   When the Contract has specified delivery of another data item that contains aspects of the required information, the SIP shall summarise these aspects and refer to the other data item.

6.1.3   The SIP shall comprise a main body and a series of separate Site-specific annexes, where:

a.   the main body shall describe all site installation activities that are required to be undertaken by the Contractor under the Contract and which are common/applicable at all Sites; and

b.   a separate annex shall be used to describe the Site-specific installation activities, constraints and information applicable at each Site.

6.2   Specific Content – Main Body

6.2.1   General

6.2.1.1   The main body of the SIP shall describe the objectives, scope, constraints, and assumptions associated with the Contractor's site installation activities at Commonwealth Premises (including facilities).

6.2.1.2   The main body of the SIP shall include all installation activities at Commonwealth Premises, including in relation to any:

a.   new, modified or existing Contractor provided facilities; and

b.   new, modified or existing Commonwealth provided facilities.

6.2.1.3   The main body of the SIP shall provide a summary of the key relationships between the Contractor's activities and those of the Commonwealth (or other party), including any access requirements to Commonwealth Premises, required for the installation of any Mission System elements or Support System Components (or both).

6.2.2   Risk Management

6.2.2.1   All risks associated with site installation activities shall be documented in the Risk Register, in accordance with the Approved Project Management Plan (PMP).

6.2.2.2   The main body of the SIP shall describe the risk management strategies common to all site-installation activities.

6.2.3   Organisation and Management

6.2.3.1   The main body of the SIP shall include the Contractor's organisational arrangements (including Subcontractors) for its site installation activities, and the inter-relationships between the installation organisation and the other parts of the Contractor's organisation for the Contract.

6.2.3.2   The main body of the SIP shall identify the individual within the Contractor's organisation who will have managerial responsibility and accountability for meeting the site installation requirements of the Contract.

6.2.3.3   The main body of the SIP shall identify the Contractor's expectations of the Commonwealth with respect to site installation activities at Commonwealth-managed sites.

6.2.4   Site Installation Activities

6.2.4.1   The main body of the SIP shall describe the Contractor's processes, procedures and common activities, and plans for co-ordinating the Contractor's activities and the Commonwealth's activities for all site-installation activities required under the Contract, including:

a.   the major activities to be undertaken, when, and by whom;

b.   an overview of the integration of Subcontractors into the Contractor's activities;

c.   the relationship between access, installation and Verification and, if applicable, Validation activities;

d.   processes, procedures and forms for co-ordination of interruptions to power, communications and other services;

e.   implications for security and safety, including the Contractor's plan to manage work health and safety during site installation; and

f.   any facilities approvals required.

6.2.4.2   The main body of the SIP shall include:

a.   an outline of the general physical and electrical characteristics of the proposed installation(s); and

b.   a description of any Verification and Validation (V&V) activities, including tests that may be conducted during and following installation to confirm that the installation has been successful.

6.2.4.3   Without limiting the requirements of the Contract, the main body of the SIP shall provide an overview of the actual and potential impact of site installation activities on:

a.   existing systems or equipment, including outages to operational capability;

b.   facilities, including:

(i)   utility services, such as water, plumbing, drainage, gas, electricity and phone connections;

(ii)   monitoring services, such alarm services, including fire alarms;

(iii)   roads, paths, car parks, retaining walls, storage tanks, landscaping, and fencing;

(iv)   electrical distribution, including power feeds, switchboards, UPS, sub-circuits arrangements; and

(v)   heating, ventilation and air-conditioning (HVAC); and

c.   the environment.

6.2.5   Site Installation Schedule

6.2.5.1   The main body of the SIP shall include a schedule of the site installation activities, showing the relationships between activities at each installation site and between different installation sites, as required under the Contract.

6.2.5.2   The full site installation schedule shall be provided as part of the CMS.

6.3   Annex Requirements – Site Specific

6.3.1   General

6.3.1.1   Each annex to the SIP shall provide site-specific details for the installation activities required under the Contract at any:

a.   new, modified or existing Contractor provided facilities; and

b.   new, modified or existing Commonwealth provided facilities.

6.3.1.2   Each annex to the SIP shall identify the site-specific relationships between the Contractor's activities and those of the Commonwealth (or other party), including any access requirements to Commonwealth Premises, required for the installation of any Mission System elements or Support System Components (or both) at the relevant Commonwealth Premises.

6.3.2   Risk Management

6.3.2.1   Each annex to the SIP shall describe the risk management strategies associated with the site-specific installation risks applicable at the relevant Commonwealth Premises.

6.3.3 Organisation Management

6.3.3.1 Each annex to the SIP shall identify the individual within the Contractor's organisation who will have managerial responsibility and accountability for meeting the site installation requirements at the relevant Commonwealth Premises.

6.3.4 Site Installation Activities

6.3.4.1 Each annex to the SIP shall describe the Contractor's plans for co-ordinating the Contractor's activities and the Commonwealth's activities at the relevant Commonwealth Premises, including:

a. the major activities to be undertaken (including during each phase of the system implementation process from removal of existing equipment (if applicable), construction work undertaken by the Commonwealth, and installation and V&V activities to be undertaken by the Contractor), when, and by whom;

b. the integration of Subcontractors into the Contractor's activities;

c. site-specific access requirements to various parts of the site, including timeframes associated with these access requirements;

d. the relationship between the Contractor's site-specific access requirements and specific Commonwealth constraints associated with operational, support or training activities, including any Commonwealth constraints associated with site preparation before access can be provided to the Contractor (eg, for removal of existing equipment);

e. site-specific co-ordination of interruptions to power, communications and other services;

f. site-specific implications for security and safety, including the Contractor's plan to manage:

   (i) site-specific security considerations during site installation, including management of site-related Certifications and re-Certifications; and

   (ii) work health and safety during site installation;

g. any site-specific facilities approvals required; and

h. activities to be undertaken to ensure the installation site is returned to a clean and functional condition upon completion of site installation activities, including such aspects as repairing any damage to road surfaces and removal of rubbish.

6.3.4.2 Each annex to the SIP shall include the following information applicable at the relevant Commonwealth Premises:

a. an outline of the physical and electrical characteristics of the proposed installation(s);

b. references to the relevant site installation drawings, which document at least the following:

   (i) equipment housings;

   (ii) equipment racks and contents;

   (iii) interconnections between components;

   (iv) fencing; and

   (v) cable runs;

c. a description of any V&V activities, including tests, that may be conducted during and following site installation to confirm that the installation has been successful and the Site is ready for subsequent Contract activities (eg, further V&V activities or Site Acceptance).

6.3.4.3 Without limiting the requirements of the Contract, each annex to the SIP shall identify the site-specific impact of site installation activities on:

a. existing systems or equipment, including outages to operational capability;

b.   facilities, including:

    (i)   utility services, such as water, plumbing, drainage, gas, electricity and phone connections;

    (ii)   monitoring services, such alarm services, including fire alarms;

    (iii)   roads, paths, car parks, retaining walls, storage tanks, landscaping, and fencing;

    (iv)   electrical distribution, including power feeds, switchboards, UPS, sub-circuits arrangements; and

    (v)   heating, ventilation and air-conditioning (HVAC); and

c.   the environment, including in relation to:

    (i)   vehicle hygiene requirements;

    (ii)   sediment and erosion control;

    (iii)   road base and quarry material;

    (iv)   vegetation management;

    (v)   POL and vehicle refuelling;

    (vi)   waste management;

    (vii)   fauna protection;

    (viii)   heritage protection;

    (ix)   vehicle movement;

    (x)   fire control; and

    (xi)   others as required.

DATA ITEM DESCRIPTION

1.   **DID NUMBER: DID-ENG-MGT-SSPP-V5.3**

2.   **TITLE: SYSTEM SAFETY PROGRAM PLAN**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The purpose of the System Safety Program Plan (SSPP) is to describe the tasks and activities for system-safety management and system-safety engineering that are required to achieve Safety Outcomes. The Approved SSPP provides a formal basis of co-ordination, consultation and understanding between the Contractor and the Commonwealth on how the system-safety program will be executed to meet contractual and legislative requirements.

3.2   The Contractor uses the SSPP to describe how the system-safety program will be accomplished to meet their legislative obligations and the Materiel Safety requirements included in the Contract.

3.3   The Commonwealth uses the SSPP to plan and monitor the Contractor's system-safety program and to determine whether the program will achieve a level of Materiel Safety acceptable to the Commonwealth, and facilitate Commonwealth compliance with legislation, including the WHS Legislation.

4.   **INTER-RELATIONSHIPS**

4.1   The SSPP is a subordinate plan to the following data items, where these data items are required under the Contract:

    a.   System Engineering Management Plan (SEMP); and

    b.   Integrated Support Plan (ISP).

4.2   The SSPP inter-relates with the following data items, where these data items are required under the Contract:

    a.   Software Management Plan (SWMP);

    b.   Contract Master Schedule (CMS);

    c.   Hazard Analysis Report (HAR);

    d.   Hazard Log (HL);

    e.   Safety Case Report (SCR);

    f.   Materiel Safety Assessment;

    g.   Safety Data Sheets (SDSs);

    h.   the security-related data items required under the Contract (ie, in relation to the relationships between security considerations and safety considerations);

    i.   Quality Plan (QP);

    j.   Verification and Validation Plan (V&VP);

    k.   Verification Cross-Reference Matrix (VCRM); and

    l.   Health and Safety Management Plan (HSMP).

5.   **APPLICABLE DOCUMENTS**

5.1   The following documents form a part of this DID to the extent specified herein:

         MIL-STD-882E   *System Safety*

                                   WHS Legislation

The system safety standards identified under the System Safety Program clause of the SOW

6. PREPARATION INSTRUCTIONS

6.1 Generic Format and Content

6.1.1 The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2 When the Contract has specified delivery of another data item that contains aspects of the required information, the SSPP shall summarise these aspects and refer to the other data item.

6.1.3 The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2 Specific Content

6.2.1 Program Scope and Objectives

6.2.1.1 The SSPP shall define a program to satisfy the system-safety requirements of the Contract by describing:

a. the scope of the system-safety program in terms of the system and the life-cycle phase;

b. the overall approach of the system-safety management, software safety management and engineering program to achieving Safety Outcomes, including through the hazard analyses required by clause 6.2.6 and related Contract requirements;

c. the integration of system-safety activities with the Systems Engineering and other functional elements of the Contract; and

d. the resource requirements needed to execute the SSPP.

6.2.1.2 The SSPP shall provide traceability for all contractually required system-safety tasks and responsibilities in a matrix that correlates the requirements of the Contract (including regulatory requirements and design constraints) to the location in the SSPP where each requirement is addressed by the system safety program.

6.2.2 System Safety Interfaces

6.2.2.1 The SSPP shall describe the interfaces between the system-safety program and:

a. all other applicable safety disciplines including nuclear safety, range safety, explosive and ordnance safety, chemical and biological safety and laser safety;

b. Systems Engineering, and all other related disciplines including reliability and maintainability, Quality Management, software development, human factors engineering and medical support (for health hazard assessments); and

c. all system integration and test disciplines.

6.2.3 System Safety Organisation

6.2.3.1 The SSPP shall:

a. describe the system-safety organisation or function within the Contractor's organisation for the Contract, including the organisational and functional relationships and lines of communication;

b. identify the responsibility and authority of each person and organisational unit involved in executing each of the contractual system-safety requirements, including Key Persons, Subcontractors and system-safety groups;

c. describe the procedures that the Contractor will use to integrate system-safety and hazard management efforts for external system interfaces, including:

(i)   the roles of Commonwealth agencies, Associated Parties and Subcontractors necessary to integrate safety requirements for the total system;

(ii)   the interfaces between the Contractor and each Subcontractor and Associated Party (eg, for integrating hazard analyses);

(iii)   integrated product teams, or working groups, with representatives from Subcontractors and Associated Parties (as applicable);

(iv)   any system-safety integration roles and their specific responsibilities for managing interfaces with external systems;

(v)   integrating hardware and software provided as GFE;

(vi)   assigning requirements to organisational units and Subcontractors;

(vii)   coordinating Subcontractor system-safety engineering efforts;

(viii) facilitating system-safety program reviews;

(ix)   recommending mitigation measures including assessing feasibility, cost, and effectiveness of the measures, and allocating implementation responsibility to Subcontractors and Associated Parties;

(x)   reporting on program safety status and measures; and

(xi)   the approach to consulting, coordinating and cooperating on safety issues, including between the parties, Subcontractors and Associated Parties; and

d.   the process through which Contractor management decisions will be made, including timely notification to the Commonwealth of unacceptable risks, necessary actions in the event of mishaps, incidents, or malfunctions, and for requesting exemptions to system-safety requirements, program deviations and Engineering Change Proposals, when applicable.

6.2.4   System Safety Program Milestones

6.2.4.1   The SSPP shall:

a.   define a schedule of system-safety program milestones including required inputs and outputs, and start and completion dates;

b.   relate the schedule of the system-safety program to system-level activities, Mandated System Reviews, and Milestones within the CMS;

c.   identify the schedules for subsystem, component, and software safety activities applicable to the system-safety program but specified in other engineering studies and development efforts to preclude duplication; and

d.   include a schedule of internal review meetings with Subcontractors and Associated Parties to cooperate, consult and coordinate the system-safety program effort.

6.2.5   General System Safety Requirements and Criteria

6.2.5.1   The SSPP shall:

a.   list the safety standards, system specifications, specified design constraints, and the civil and military regulations containing safety requirements that shall be complied with by the Contractor, including the Applicable Documents at clause 5 and identifying titles, dates and, where applicable, paragraph numbers;

b.   describe general engineering requirements and design criteria for achieving safety outcomes applicable to design and development activities, including the role of Software in safety for each of the relevant states and modes);

c.   identify safety requirements for all appropriate phases of the life cycle up to, and including, disposal;

d.   describe the method for ensuring flow-down of hazard identification, mitigation strategies and associated system-safety program requirements to Subcontractors; and

    e.   describe the structure of the Materiel Safety baseline documentation to be delivered to the Commonwealth (ie, the SCR or Materiel Safety Assessment, as applicable to the Contract).

6.2.6 Hazard Analysis

6.2.6.1 The SSPP shall describe:

    a.   the process for hazard identification, risk assessment, risk mitigation, communication of risks and support to risk acceptance including:

        (i)   for hazard identification, the systematic identification process that evaluates the system throughout its life-cycle, including system hardware and software, system interfaces (including human interfaces), the intended use or application and operational environment, and disposal;

        (ii)   for risk assessment, the description of severity categories, probability levels, and the process for assigning Hazard Risk Indices (HRIs);

        (iii)   for risk mitigation, how decisions will be made within the system-safety process, with an emphasis on achieving Safety Outcomes including, in the context of cost to eliminate and minimise risks, whether the cost of further mitigation would be grossly disproportionate to the risk; and

        (iv)   for risk acceptance, the procedures for communicating and coordinating Commonwealth residual risk acceptance, including procedures for engaging the relevant Commonwealth authority(ies);

    b.   the approach for applying system-safety processes to extant system interfaces, subsystems or components (eg, for off-the-shelf items or legacy software) including the approach for verification and ensuring that existing data is consistent with the configuration, role and environment for the Mission System(s) and other Supplies;

    c.   the process for determining whether a qualitative or quantitative risk assessment is appropriate for a given hazard;

    d.   the hazard analyses to be performed (eg, preliminary hazard analysis, subsystem hazard analysis), the techniques to be used (eg, fault tree analysis, FMECA) and the documentation of the results, including the hazard analyses to be reported in each Hazard Analysis Report that is required to be delivered by the Contractor;

    e.   the scope of each analysis activity, the integration of Associated Party and Subcontractor hazard analyses within the overall system hazard analyses, and the depth within the system to which each analytical technique will be used;

    f.   for system interfaces, how analysis of the integrated system design, operations, and the interfaces between the products from each Subcontractor and Associated Party and the Mission System, or other major Supplies, will be executed;

    g.   the efforts to identify and control hazards associated with Problematic Substances and Problematic Sources incorporated within the design, and those Problematic Substances and Problematic Sources used in operation and support during the system's life-cycle;

    h.   the efforts to identify and control WHS hazards directly related to the design (eg, noise, vibration, working at heights, working in confined spaces, lifting requirements and other human interface and ergonomic factors); and

    i.   the systematic software safety approach to be followed, when applicable.

6.2.6.2 The SSPP shall provide traceability to the hazard analysis tasks from MIL-STD-882E, or an equivalent standard acceptable to the Commonwealth Representative, and identify any tailoring of the standard tasks for the system-safety program under the Contract.

6.2.7 System Safety Data

6.2.7.1 The SSPP shall:

    a.   describe the approach for collecting and processing pertinent hazard, mishap, and safety lessons learned data, including both historical data used to assist system safety analyses and current system data in the Hazard Log;

    b.   describe the management and use of the Hazard Log for recording each mishap risk and hazard, and the findings and results of the related analysis including hazard and safety-risk analyses, risk mitigation, and treatment;

    c.   identify all deliverable data items by title and number, and means of delivery (eg, hard copy, electronically); and

    d.   identify non-deliverable system-safety data and describe the procedures for accessibility by the Commonwealth and retention of data of historical value.

6.2.7.2   The SSPP shall, in accordance with clause 6.2.7.1, describe the scope of the SCR or Materiel Safety Assessment, as applicable to the Contract, and the supporting information to be delivered to the Commonwealth as evidence for the assessment of Materiel Safety.

6.2.8   **Safety Verification**

6.2.8.1   The SSPP shall describe:

    a.   the Verification, and reporting, of the effectiveness of mitigation measures in achieving Safety Outcomes through test, analysis, inspection, or other means;

    b.   the Verification, and reporting, that hardware, software, and procedures comply with identified hazard management requirements;

    c.   requirements for certification, independent review evaluations and special testing of safety features (eg, insensitive munitions tests and render safe / emergency disposal procedures);

    d.   the procedures in place to transmit safety-related Verification information to the Commonwealth; and

    e.   the procedures for ensuring the safe conduct of all Verification activities.

6.2.9   **Audit Program**

6.2.9.1   The SSPP shall describe the techniques and procedures to be employed by the Contractor to ensure that the objectives and related requirements of the system-safety program, including the achievement of Safety Outcomes, are being accomplished.

6.2.10   **Training**

6.2.10.1   The SSPP shall describe the safety training for personnel involved with the system-safety program.

6.2.11   **Incident Reporting**

6.2.11.1   The SSPP shall describe the incident alerting (including for mishaps and malfunctions), investigation and reporting processes, including notification of the Commonwealth.

6.2.12   **System Safety Working Group**

6.2.12.1   Where the SOW requires the Contractor to establish a System Safety Working Group (SSWG), the SSPP shall include a plan for the SSWG, including:

    a.   objectives and the terms of reference for the SSWG;

    b.   the membership and points of contact for the SSWG; and

    c.   arrangements for the conduct of SSWG meetings.

DATA ITEM DESCRIPTION

1.　　DID NUMBER:　　DID-ENG-SOL-CSCRP-V5.3

2.　　TITLE:　　CYBER SUPPLY CHAIN RISK PLAN

3.　　DESCRIPTION AND INTENDED USE

3.1　　The Cyber Supply Chain Risk Plan (CSCRP) is used to identify and track Cyber Supply Chain threats for Digitally Enabled Systems and Equipment (DESE) and Software, the associated risk assessments, the risk treatment options, and the existing and proposed risk controls associated with the Cyber Supply Chains for the Security Systems-of-Interest (SSoIs), including during design, development, build, operation and support. The Approved governing plan (eg, Materiel System Security Management Plan (MSSMP) or In-Service Security Management Plan (ISSMP), as applicable) provides the plan and associated processes for managing security-related risks, while the CSCRP addresses the specific risk information relating to Cyber Supply Chain risks for the SSoIs (or relevant components thereof).

3.2　　The Contractor uses the CSCRP:

　　a.　　to document the Cyber Supply Chain threats for the SSoIs/DESE/Software, including the associated risk assessments, and to review and update those threats and assessments as circumstances change during the acquisition phase and the in-service phase (as applicable);

　　b.　　to document the risk treatment options, the existing and proposed risk controls, and the residual risk exposure;

　　c.　　to advise the Commonwealth and, as applicable, the ICT and cyber Security Authorisation authorities and assessor(s) of the Cyber Supply Chain threats and risk assessments associated with the SSoIs; and

　　d.　　as one of the security artefacts to provide assurance to the Commonwealth that the Contractor's security activities will result in the cyber-security requirements for a SSoI being achieved and maintained.

3.3　　The Commonwealth uses the CSCRP:

　　a.　　to gain assurance that the Contractor has a sound Cyber Supply Chain program in place that complies with applicable Government and Defence security requirements and policies;

　　b.　　to understand and evaluate the Contractor's approach to meeting the Cyber Supply Chain requirements of the Contract as part of the system security program for the acquisition phase and in-service phase (as applicable);

　　c.　　to identify and understand the Commonwealth's involvement in the Contractor's Cyber Supply Chain program, including the monitoring of the Contractor's program;

　　d.　　as an input to its own planning, including in relation to attaining and/or maintaining the required ICT/cyber Security Authorisations for a SSoI; and

　　e.　　as part of the Objective Evidence provided to the relevant Defence authorities as part of initially obtaining and subsequently maintaining the required ICT/cyber Security Authorisations for a SSoI.

4.　　INTER-RELATIONSHIPS

4.1　　The CSCRP is subordinate to the following data items, where these data items are required under the Contract:

　　a.　　Project Management Plan (PMP);

　　b.　　Support Services Management Plan (SSMP);

c.   Systems Engineering Management Plan (SEMP);

d.   Contractor Engineering Management Plan (CEMP);

e.   Materiel System Security Management Plan (MSSMP); and

f.   In-Service Security Management Plan (ISSMP).

4.2   The CSCRP inter-relates with the following data items, where these data items are required under the Contract:

a.   System Architecture Description (SAD), which identifies the product breakdown structure or system breakdown structure for the relevant SSoIs;

b.   Software List (SWLIST);

c.   Configuration Status Accounting Report (CSAR);

d.   any provisioning lists required under the Contract (eg, the Recommended Spares Provisioning List (RSPL) or the Recommended Provisioning List (RPL)); and

e.   the security-related data items required under the Contract (other than those identified under clause 4.1).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

Governing Security Documents	(see the Glossary for the definition of this term)
CTIS	Australian Cyber Security Centre (ACSC) Cyber Threat Intelligence Sharing (CTIS) platform
NIST SP 800-30	Guide for Conducting Risk Assessments, Revision 1, September 2012
NIST SP 800-37	Risk Management Framework for Information Systems and Organizations: A System Life Cycle Approach for Security and Privacy, Revision 2, December 2018
ISO/IEC 27005:2022	Information security, cybersecurity and privacy protection – Guidance on managing information security risks
ASIO 18-9938	Security Manager's Guide: Supply Chain Security, 2018
	ACSC Publication, 'Cyber Supply Chain Risk Management', May 2023
	ACSC Publication, 'Identifying Cyber Supply Chain Risks', May 2023
	ACSC Publication, 'Cloud Computing Security Considerations', October 2021
Defence ICT/Cyber SCRM Framework	The Defence ICT/Cyber Procurement Supply Chain Risk Management Framework, October 2020

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

Note: This DID has been written on the basis that all SSoIs applicable to a Contract will be addressed within a single CSCRP. Where this is not the case, such as may occur for larger

Mission Systems (eg, aircraft or ship), the requirements of the DID should be interpreted in the context of the set of CSCRPs and associated SSoIs (or components thereof).

6.1.2   The CSCRP shall be consistent with and, where applicable, comply with the Governing Security Documents. The CSCRP shall accord with the risk management framework documented in the Approved governing plan (eg, PMP/SSMP, MSSMP or ISSMP), as applicable.

6.1.3   In relation to the delivery of each version of the CSCRP for a SSoI (eg, during the acquisition phase or as part of the development of a Major Change during the support phase), each version shall, at the time of delivery, be sufficiently complete to satisfy the purpose for which it is being provided (eg, to support the assessment of cyber Security Authorisation for a particular SSoI or element thereof).

6.1.4   When the Contract has specified delivery of another data item that contains aspects of the required information, the CSCRP should summarise these aspects and refer to the other data item.

6.1.5   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   **Specific Content**

6.2.1   **Summary**

6.2.1.1 The CSCRP shall include a system-level summary of the CSCRP, including:

a.   an overview of each SSoI being assessed, including identifying any standalone elements, such as an item of Training Equipment or a security system within a Facility;

b.   a brief description of the risk-assessment process undertaken, cross-referring to the Approved governing plan, as appropriate;

c.   a summary of the Cyber Supply Chain risk sources considered, including the severity of risk exposures associated with these risk sources; and

d.   the significant conclusions of the CSCRP.

6.2.2   **Scope**

6.2.2.1 The CSCRP shall identify the product breakdown structure or system breakdown structure (as applicable) for each SSoI (or significant products within an SSoI), which decomposes the system and its related subsystems to a level, which enables the identification of all DESE and Software components and any associated ICT services (eg, cloud computing services) that:

a.   form part of the SSoI that will be obtained through the Contractor's Cyber Supply Chain or acquired through other means, such as from open-sources; and

b.   have the potential to include cyber vulnerabilities or introduce cyber vulnerabilities into an SSoI (or element thereof),

(hereinafter known as '**Vulnerable Components / Services**').

6.2.2.2 The CSCRP shall identify any assumptions and constraints associated with the assessment of the Cyber Supply Chains for an SSoI, including any factors relating to the CSCRP that are assumed but not confirmed and that have constrained the assessment of Cyber Supply Chain risks for the SSoI.

6.2.2.3 In responding to the specific requirements of this DID, the CSCRP shall describe how the Applicable Documents listed at clause 5 have been utilised to ensure that the CSCRP will achieve the objectives and purposes set out in clause 3.

6.2.2.4 The CSCRP shall describe the processes and timings for updating the CSCRP as new items of DESE and/or proposed new suppliers are identified, including how the Commonwealth will be kept apprised of the updated risk assessments and any judgements arising from those risk assessments associated with these new aspects.

6.2.3   Supply Chain Risk Assessment

6.2.3.1   The CSCRP shall identify and describe the Cyber Supply Chain risks applicable to the scope of the assessment identified through clause 6.2.2.

6.2.3.2   The CSCRP shall consider the following Cyber Supply Chain risk sources (as described in the ACSC Publication, 'Identifying Cyber Supply Chain Risks') as a minimum:

    a.   risks due to foreign control or interference;

    b.   risks due to poor security practices, including by lower-tier suppliers (which could include, for example, insertion of counterfeits, unauthorised production, compromised / infected system images, malicious insiders, tampering, insertion of malicious software and hardware, and poor patch-management practices);

    c.   risks due to lack of transparency;

    d.   risks due to access and privileges; and

    e.   risks due to poor business practices.

6.2.3.3   The CSCRP shall include the following information for each identified Vulnerable Component / Service:

    a.   the component/service title and unique identifier;

    b.   a component/service description;

    c.   the criticality (consequence) assessment conducted in accordance with the Defence ICT/Cyber SCRM Framework;

    d.   the vulnerability (likelihood) assessment conducted in accordance with the Defence ICT/Cyber SCRM Framework;

    e.   the existing controls (eg, as identified in Table Three of the Defence ICT/Cyber SCRM Framework or other source Approved by the Commonwealth Representative);

    f.   the resultant risk exposure;

Note: The October 2020 version of the Defence ICT/Cyber SCRM Framework identifies five treatment options: Avoid, Share, Exploit, Accept and Reduce. For consistency of risk management practices across all aspects of the Contract, these five options should be mapped into the standard treatment options and language identified in the Contract.

    g.   the treatment option(s) (ie, acceptance, reduction, transfer or avoidance);

    h.   the treatment recommendation(s);

    i.   the residual likelihood of occurrence after the identified treatment recommendations, which involve implementation actions, have been implemented;

    j.   the residual consequence of realisation after the identified treatment recommendations, which involve implementation actions, have been implemented; and

    k.   the residual risk exposure.

6.2.4   Risk Treatment Planning

Note: The risk-treatment plan for each Cyber Supply Chain risk may involve both initial activities as part of establishing the Cyber Supply Chain(s) as well as ongoing monitoring and surveillance activities, including (for example) the inclusion of specific provisions in Subcontracts and limiting the supply of particularly vulnerable components to only known and trusted suppliers (eg, from the Five Eyes (FVEY) countries). The Commonwealth expects that both sets of activities will be addressed in each risk-treatment plan (to the extent applicable), including how ongoing performance monitoring will be undertaken and how the Contractor will set up and/or manage its support arrangements to ensure that the risk-treatment plans will have ongoing validity.

6.2.4.1   The CSCRP shall set out the Contractor's risk-treatment plan for each risk for which the risk-treatment option is to either:

a.   reduce the likelihood and/or reduce the consequence; or

b.   avoid the risk by changing the design of the SSoI to enable such avoidance to occur,

with the aim of demonstrating that these risk-treatment plans, once implemented, will be sufficient to ensure that the SSoI will be ASARP.

6.2.4.2   Each risk-treatment plan shall include:

a.   the position responsible within the Contractor's or supplier's organisation;

b.   a brief description of the required scope of work;

c.   the envisaged schedule for implementation, including the associated milestones;

d.   the likely resources;

e.   the envisaged cost; and

f.   any other relevant information (eg, implementation risks and verification activities).

6.2.5   Residual Risk Exposure

6.2.5.1   The CSCRP shall record whether the residual risk exposure associated with each Cyber Supply Chain risk has been accepted by the Commonwealth in support of:

a.   if applicable, ICT Security Authorisation for the SSoIs (or elements thereof); and

b.   cyber Security Authorisation for the SSoIs (or elements thereof).

6.2.5.2   The record of risk acceptance required under clause 6.2.5.1 shall include:

a.   the Contractor's risk acceptance authority by title and organisation, and date of acceptance;

b.   the Commonwealth authority's concurrence or non-concurrence, as applicable, by title and organisation, and date of risk acceptance; and

c.   identification details for the signed risk acceptance document(s).

DATA ITEM DESCRIPTION

1.   **DID NUMBER:**   **DID-ENG-SOL-CSCR-V5.3**

2.   **TITLE:**   **CYBER SECURITY CASE REPORT**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The Cyber Security Case Report (CSCR) documents a comprehensive evaluation, at the time of the report, of the cyber threats and system vulnerabilities and their associated risks prior to test or operation of a Security System-of-Interest (SSoI), following system modification, or prior to the Acceptance of an SSoI (or element thereof). A CSCR may address multiple SSoIs if this is efficient and practicable.

3.2   The CSCR, including by reference to other security-related data items (which in totality form the 'Cyber Security Case'), identifies the cyber threats, associated risks, and measures to ensure that cyber threats have been either eliminated or their potential effects minimised so that the SSoI (or element thereof) is assessed to be As Secure As Reasonably Practicable (ASARP) – in summary, all of the evidence needed to demonstrate that the cyber-related Security Outcomes have been, or will be[1], met. The CSCR documents the consultation outcomes between the Commonwealth and Contractor and formal risk acceptance decisions made.

3.3   The Contractor uses the CSCR to present an argument, supported by a body of evidence, to demonstrate that, for an SSoI (or element thereof):

    a.   when used in relation to the Acceptance of Supplies, the SSoI (or element thereof) is ASARP and can be operated under a known threat environment with an acceptable level of risk of performance degradation due to cyber attack, as the cyber-related Security Outcomes have been, or will be, met;

    b.   the applicable Defence and Government cyber-security requirements, including in relation to relevant Security Authorisations, design rules, standards, and codes of practice, have been satisfied and the residual security risks are acceptable; and

    c.   the confidentiality, integrity and availability of the SSoI (including the data processed, stored and/or communicated electronically or by similar means by the SSoI) can be maintained during operations.

3.4   The Commonwealth uses the CSCR for an SSoI (or element thereof):

    a.   to determine that the cyber threats to Defence operations and system integrity have been identified and that the cyber-related Security Outcomes have been, or will be, met;

    b.   when applicable, as a basis for evaluating system security prior to the Acceptance of Supplies;

    c.   as the principle justification for assessing that risk of compromise from cyber attack has been mitigated to an 'acceptable level' based on the robustness of the arguments underpinning the CSCR; and

    d.   as the basis for assessing and managing cyber-security risks throughout the life-cycle of an SSoI.

4.   **INTER-RELATIONSHIPS**

4.1   The CSCR is subordinate to the following data items, where these data items are required under the Contract:

    a.   Systems Engineering Management Plan (SEMP);

    b.   Contractor Engineering Management Plan (CEMP);

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[1] Reference to 'will be' acknowledges that some measures can only be established through Defence processes and training.

    c.   Materiel System Security Management Plan (MSSMP); and

    d.   In-Service Security Management Plan (ISSMP).

4.2   The CSCR inter-relates with the following data items, where these data items are required under the Contract:

    a.   Cyber Supply Chain Risk Plan (CSCRP);

    b.   the security-related data items required for physical security, Emanation Security (EMSEC), and Information and Communications Technology (ICT) security; and

    c.   Verification and Validation (V&V) data items, such as the V&V Plan (V&VP), Verification Cross Reference Matrix (VCRM), Acceptance Test Plans (ATPs), and Acceptance Test Reports (ATRs).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

    Governing Security Documents   (see the Glossary for the definition of this term)

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   When the Contract has specified delivery of another data item that contains aspects of the required information, the CSCR shall summarise these aspects and refer to the other data item as part of the body of evidence.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   General

6.2.1.1   The CSCR shall comprise a comprehensive and structured body of evidence that demonstrates, by reasoned argument, that an SSoI is suitable for Acceptance with respect to cyber security.

6.2.1.2   The CSCR shall include an executive summary.

6.2.1.3   Subject to clause 6.1.2, the CSCR shall provide a description of the SSoI(s) to which the Cyber Security Case relates, including:

    a.   the applicable configuration(s), roles, functions and environments, system boundaries, Targets of Security Assessment (ToSAs), major and security-critical Digitally Enabled Systems and Equipment (DESE) and Software, and areas of cyber-security risk that are worthy of particular attention; and

    b.   where relevant, any interfaces and interactions with other systems and personnel that may present cyber-security interface risks that cannot be managed by a single Contractor or Commonwealth entity.

6.2.2   System Security Program

6.2.2.1   The CSCR shall provide a description of the system security program employed by the Contractor to provide assurances as to the integrity of the process used to develop and update the Cyber Security Case, including the Contractor's current assessment of cyber maturity against the Defence Cyberworthiness System (DCwS).

6.2.2.2   The description of the system security program shall summarise the analyses performed to achieve the cyber-related Security Outcomes, including:

a. a summary of the system security engineering and management processes employed to meet the cyber security-related requirements of the Contract, with explicit reference to the quality procedures employed;

b. a summary of the Cyber Security Assurance Basis, if one is required by the Contract;

c. the overarching approach and procedural requirements to ensure the authenticity of materiel through the Cyber Supply Chain (as part of both the acquisition phase and the in-service phase);

d. details of relevant Security Authorisations; and

e. the responsibilities and accountabilities of Key Persons involved in the system security program.

6.2.2.3 The CSCR shall summarise the requirements, criteria and methodology used to classify and rank cyber threats, including any assumptions on which the criteria or methodologies were based or derived including the definitions for the cyber threat risk indices and of acceptable risk. Where data for extant subsystems, components and interfaces were incorporated into the analysis, the CSCR shall summarise how that existing data was validated and, if necessary, adapted for the configuration(s), role and environment applicable to an SSoI (or element thereof).

6.2.3 SSoI Cyber-Security Assessment

6.2.3.1 The CSCR shall demonstrate, through assessment based on Objective Evidence, how an SSoI achieves the cyber-security requirements specified under the Contract, the requirements of relevant Australian legislation, codes of practice, civil and Defence regulatory requirements, and applicable design and safety standards.

6.2.3.2 The CSCR shall contain the Objective Evidence used to demonstrate that the cyber-related Security Outcomes for an SSoI have been, or will be, met, including:

a. a list of all cyber security-related risks with a residual (ie, post-treatment) risk level of medium or above, or as otherwise defined in the Approved MSSMP or the Approved ISSMP, as applicable;

b. subject to clause 6.1.2, the cyber threats against which the analyses and risk assessments were undertaken;

c. subject to clause 6.1.2, results of any cyber threat analyses conducted;

d. subject to clause 6.1.2, the details of any calculations, analyses, tests or examinations necessary to demonstrate that the cyber-related Security Outcomes have been, or will be, met, including the actions undertaken to:

(i) identify cyber threats that could give rise to risks to the confidentiality, classification, availability and/or integrity of information and data processed, stored and/or communicated electronically or by similar means by the SSoI;

(ii) identify cyber threats that could give rise to risks to operational effectiveness and/or achieving the Safety Outcome;

(iii) evaluate the actions taken to eliminate the cyber threats and associated risks to cyber security so that the SSoI is assessed as ASARP; and

(iv) validate the performance of cyber security controls;

e. subject to clause 6.1.2, recommendations applicable to cyber threats at, or caused by, the interface between the SSoI and other system(s), where applicable;

f. evidence that all applicable Security Authorisations and necessary security-related compliance assurance activities, as required by applicable security authorities, have been met;

g. a list of all pertinent reference materials including reports, standards and regulations, specifications and requirements documents, design documentation, and operating, maintenance and other manuals, including the Approved ISSMP and Approved SSOPs;

h.   subject to clause 6.1.2, evidence to demonstrate that the Cyber Supply Chain's contribution to cyber security has been assessed, and that policies and procedures for continued Cyber Supply Chain assurance have been generated; and

i.   subject to clause 6.1.2, any additional supporting evidence reasonably required by the Commonwealth for the purposes of demonstrating that the cyber-related Security Outcomes for the SSoI have been, or will be, met.

6.2.3.3   The CSCR shall contain a summary statement, signed by the Contractor's technical authority, declaring that the cyber-related Security Outcomes for an SSoI have been met and the SSoI is ready to undergo test, to operate, or to otherwise proceed into the next phase of its life cycle.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ENG-SOL-DCERT-V5.3

2.   TITLE: DESIGN CERTIFICATE

3.   DESCRIPTION AND INTENDED USE

3.1   The Design Certificate (DCERT) is the document that certifies that a design conforms to the specified design requirements (with the exception of any items quoted on the DCERT) and is compliant with statutory obligations. The DCERT either includes, or refers to, the objective evidence necessary to support the claims of conformance.

3.2   The Contractor uses the DCERT to enable the individual approving each design or design change to certify that the design meets the contractual and statutory requirements and provide the certification required by any applicable ADF regulatory / assurance framework.

3.3   The Commonwealth uses the DCERT to provide confidence that a design meets the stated requirements, that the risks associated with a design are defined and have been controlled, and that the designer has addressed statutory obligations including the duties of a designer in accordance with Section 22 of the *Work Health and Safety Act 2011 (Cth)*.

4.   INTER-RELATIONSHIPS

4.1   The DCERT inter-relates with the following data items, where these data items are required under the Contract:

a.   System Specification (SS) for a Mission System, or specification for a modification;

b.   Support System Specification (SSSPEC);

c.   System Architecture Description (SAD);

d.   design documents; and

e.   Acceptance Verification and Validation (AV&V) data items.

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

AAP 8000.011	Defence Aviation Safety Regulations (DASR)
ANP3411-0101	Navy Materiel Assurance Publication
LMSM	Land Materiel Safety Manual
DEOP 100 Vol 2 Pt2 Chap 3	Explosive Ordnance Safety Regulations

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall comply with any formatting requirements specified in the applicable ADF regulatory / assurance framework manual specified in the Statement of Work (SOW).

6.2   Specific Content

6.2.1   Identification of Certified Product

6.2.1.1   The DCERT shall identify the product to which the DCERT applies, including:

a.   item name;

b.   NATO Stock Number (NSN), if applicable;

    c.   manufacturer's code (ie, the NATO Commercial and Government Entity (NCAGE) code);

    d.   manufacturer's part / reference number; and

    e.   any additional information required to ensure that the product identification is clear and unambiguous.

6.2.2 Design Requirements and Evidence of Conformance

6.2.2.1 The DCERT shall include:

    a.   an index of the specifications / requirements, including applicable standards, against which the design was developed;

    b.   an index of the design documentation;

    c.   an index of the documentation that Verifies that the design conforms with the design requirements;

    d.   confirmation of successful completion of all Acceptance V&V activities required under the Contract;

    e.   details of any applicable ADF regulatory / assurance framework;

    f.   certification that, except for any exceptions listed on the design certificate in accordance with subclause g, the design, or design change:

        (i)   conforms with the design requirements;

        (ii)   is suitable for use in the intended environment and operating scenarios as documented in the Operational Concept Document or Operational and Support Concept (as applicable to the Contract); and

        (iii)   that all calculations made during the course of the design are warranted correct;

    g.   a list of exceptions from the design requirements;

    h.   certification that the designer has met any statutory obligations including the further duties of a designer in accordance with Section 22 of the *Work Health and Safety Act 2011 (Cth)*; and

    i.   details of the registration of any design or item requiring registration under Part 5.3 of the *WHS Regulations 2011 (Cth)*.

6.2.2.2 The DCERT shall include additional evidence reasonably required by the Commonwealth Representative, the *Work Health and Safety Act 2011 (Cth)*, and any ADF regulatory / assurance framework authority, in support of the requirements of clauses 6.2.2.1 and 6.2.4.

6.2.3 Issuing Authority

6.2.3.1 The DCERT shall identify the name and authority held by the individual approving the design, and the name and address of the company to which the individual belongs.

6.2.3.2 The DCERT shall be jointly signed by:

    a.   the individual approving the design, as authorised by the Contractor and in accordance with any applicable ADF regulatory / assurance framework requirements; and

    b.   the Contractor Representative.

6.2.4 ADF Regulatory / Assurance Framework Requirements

6.2.4.1 When a system certification program is required under the Contract, the DCERT shall include any additional supporting evidence required by the applicable ADF regulatory / assurance framework publication, as listed in clause 5.1 and specified in the SOW (including specifications), and the Approved governing plan for the system certification program.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ENG-SOL-ECARS-V5.3

2.   TITLE: EQUIPMENT   CERTIFICATION   TO   ACCESS   RADIOFREQUENCY SPECTRUM

3.   DESCRIPTION AND INTENDED USE

3.1   The Equipment Certification to Access Radiofrequency Spectrum (ECARS) is required for the equipment, systems, sub-systems, Configuration Items (CIs), or end products that rely on the Radiofrequency Spectrum for their operation ('spectrum-dependant equipment'), as identified in accordance with the clause titled 'Access to the Radiofrequency Spectrum' in the SOW.

3.2   Radiofrequency Spectrum is a limited resource that must be shared between numerous Defence and civilian systems. The ability of a materiel solution to meet Defence's capability requirements may depend on sufficient Radiofrequency Spectrum access. Conversely, restricted and/or limited Radiofrequency Spectrum access may limit the capability of a solution.

3.3   The Australian regulatory framework for Radiofrequency Spectrum access is unique to that of other jurisdictions. In Australia, the Commonwealth may need to place restrictions on its utilisation of solutions that are compatible with other regulatory environments. Similarly, the Commonwealth may need to place restrictions on its utilisation of solutions that are designed to operate in Radiofrequency Spectrum designated for civilian.

3.4   The Contractor uses ECARS to advise the Commonwealth of the Radiofrequency Spectrum needs of proposed solutions and actual delivered.

3.5   The Commonwealth uses ECARS to:

a.   assess proposed solutions for their compliance with Australian regulatory and Defence-specific requirements, and any restrictions on spectrum availability that may affect operational capability or system performance; and

b.   obtain details of the technical characteristics of the delivered solution to support Radiofrequency Spectrum management for the operation of the delivered solution.

4.   INTER-RELATIONSHIPS

4.1   The ECARS is subordinate to the following data items, where these data items are required under the Contract:

a.   Systems Engineering Management Plan (SEMP); and

b.   Contractor Engineering Management Plan (CEMP).

4.2   The ECARS inter-relates with the following data items, where these data items are required under the Contract:

a.   Electromagnetic Environmental Effects Management Plan (E3MP);

b.   System Specification (SS);

c.   Support System Specification (SSSPEC);

d.   Design Documentation; and

e.   Design Certificate (DCERT).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

AA 763 form   Technical Characteristics for Spectrum-Dependent Equipment

EMS Manual   Electromagnetic Spectrum Manual

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.2   Specific Content

6.2.1   General Requirements

6.2.1.1   An AA 763 form is required for each separate equipment or system component that requires access to, use of, or relies on the Radiofrequency Spectrum for its operation.

6.2.2   Specific Requirements

6.2.2.1   The AA 763 shall consist of information entered onto all pages for each piece of equipment, system, sub-system, CI or end product that requires access to, use of, or relies on the Radiofrequency Spectrum for its operation.

6.2.2.2   The AA 763 forms are to be amended, as required, to reflect any hardware or software design changes that affect radiofrequency performance.

Note: Refer to the 'DSO Guidance Document – Completing Form AA 763' for further guidance when completing the AA 763. The Defence Spectrum Office Spectrum Planning and Engineering section, contactable at spectrum.planners@defence.gov.au, can provide further advice on the completion of the AA 763 form.

Annex:

A.   Form AA 763

AA763 ECARS

DATA ITEM DESCRIPTION

1.   **DID NUMBER:**   **DID-ENG-SOL-ESCP-V5.3**

2.   **TITLE:**   **EMANATION SECURITY (EMSEC) CONTROL PLAN**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The Emanation Security (EMSEC) Control Plan (ESCP) sets out the Contractor's plan to reduce the assessed risks arising from the potential exploitation by non-Defence parties of compromising emanations produced by the Mission System. The ESCP addresses the assessed risks through the management of the spatial environment and installation methods used for systems processing classified information above PROTECTED.

Notes:

- *The EMSEC Threat Level (ETL) is stated within the Project EMSEC Threat Assessment (ETA), which is produced by Australian Signals Directorate (ASD) in accordance with ACSI 71D. A Project TEMPEST Requirements Statement (TRS) may also be produced by ASD, which provides guidance on the EMSEC installation requirements for the Mission System that will enable it to meet EMSEC testing required by ASD, given the assessed risk levels. The level and depth of the design-related and installation-related information provided in the ESCP are shaped by the guidance contained within the Project ETA and, if applicable, the Project TRS. Due to the classified nature of TEMPEST testing, the Commonwealth normally conducts this testing.*

- *The Contractor prepares the ESCP under guidance from the Commonwealth Representative and the Commonwealth submits the document to the Certification authority in support of the EMSEC Certification and Accreditation of the Mission System.*

3.2   The Contractor uses the ESCP as one of the EMSEC artefacts:

a.   to detail the design and installation methods to be used to reduce or eliminate compromising emanations produced by the Mission System;

b.   to advise the Commonwealth and the associated Certification and Accreditation authorities, as prescribed by ASD, of the design and installation methods implemented to address the risks associated with the potential exploitation of compromising emanations; and

c.   to provide assurance to the Commonwealth that the Contractor's EMSEC activities will enable the security requirements for the Mission System to be achieved.

3.3   The Commonwealth uses the ESCP:

a.   to gain assurance that EMSEC considerations are taken into account during the design and installation activities for the Mission System;

b.   to understand and evaluate the Contractor's approach to meeting the EMSEC requirements of the Contract as part of the system security program;

c.   to identify and understand the Commonwealth's involvement in the Contractor's EMSEC program, including the monitoring of the Contractor's program;

d.   as an input to its own planning for the project, including in relation to attaining Certification and/or Accreditation for the Mission System; and

e.   as one of the suite of EMSEC artefacts provided to the relevant Defence authorities as part of obtaining Certification and/or Accreditation for the Mission System.

4.   INTER-RELATIONSHIPS

4.1   The ESCP is subordinate to the following data items, where these data items are required under the Contract:

   a.   Systems Engineering Management Plan (SEMP);

   b.   Contractor Engineering Management Plan (CEMP);

   c.   Materiel System Security Management Plan (MSSMP); and

   d.   In-Service Security Management Plan (ISSMP).

4.2   The ESCP inter-relates with the following data items, where these data items are required under the Contract:

   a.   the security-related data items required under the Contract;

   b.   the safety-related design artefacts (eg, Safety Case Report (SCR));

   c.   Mission System Technical Documentation Tree (MSTDT); and

   d.   Verification and Validation Plan (V&VP).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

Note to drafters: Amend the list of Applicable Documents to suit the requirements of the Contract.   Do not include the documents included within the 'Governing Security Documents'.

Governing Security Documents	(see the Glossary for the definition of this term)
ACSI 71D	Australian Communications Security Instruction – Emanation Security Manual
ACSI 61D	Australian Communications Security Instruction – Emanation Security Installation Manual
DEF(AUST) 5000, Volume 6, Part 2, Section 12, Issue 2	Emanation Security
Project ETA	Project EMSEC Threat Assessment
Project TRS	Project TEMPEST Requirements Statement (if a Project TRS is required for the project)

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.1.3   The ESCP shall be classified in accordance with the requirements of the Security Classification and Categorisation Guide (SCCG) at Attachment J to the COC, but shall not be classified lower than OFFICIAL: SENSITIVE.

6.2   Specific Content

6.2.1   Introduction

6.2.1.1   The ESCP shall provide a brief overview of the purpose and background of the project and the Mission System.

6.2.1.2   The ESCP shall:

a.   set out the aim of the ESCP;

b.   set out the scope of the ESCP, including the applicable information from Sections 1 and 2 of ACSI 71D and Sections 1 and 2 of ACSI 61D;

c.   provide a description of the Mission System in the form of a block diagram with signal flow paths;

d.   provide a brief description of EMSEC and EMSEC control, including how EMSEC control management is to be conducted for the project; and

Note to drafters: Amend the following clause if PURPLE is not applicable to the Contract.

e.   describe how conventions such as BLACK, RED and PURPLE (Classification Domains) will be used throughout the document.

6.2.2   Organisation and Management

6.2.2.1   To the extent not already addressed in the Approved governing plan (eg, SEMP, MSSMP or ISSMP), the ESCP shall describe the roles and responsibilities of the main personnel involved in the EMSEC program, including:

a.   Contractor EMSEC Control Officer (appointed by the Contractor); and

b.   Delivery Group EMSEC Control Officer (appointed by the Commonwealth).

6.2.3   General Requirements

6.2.3.1   The ESCP shall provide a summary of the EMSEC requirements to be met by the Mission System, including:

a.   the requirements contained in the Specification(s) at Annex A to the SOW;

b.   the requirements derived from the applicable documents identified at clause 5.1; and

c.   any other requirement sources used by the Contractor.

6.2.3.2   The ESCP shall include a table that provides the allocation of the required controls, as derived from the applicable documents identified at clause 5.1, to the entity responsible for the implementation of that control (eg, Contractor or Commonwealth).

6.2.3.3   The ESCP shall identify and describe the EMSEC-related Technical Data that will be produced and/or delivered as part of the EMSEC program.

6.2.4   Design Concepts

6.2.4.1   The ESCP shall describe the design concepts that have been followed for the Mission System to ensure that the system complies with EMSEC requirements identified pursuant to clause 6.2.3.1 of this DID. Design concepts that should be considered include:

a.   those set out in the Project TRS (if applicable);

b.   those set out in Sections 3-5 of ACSI 61D; and

c.   the following specific issues:

(i)   physical design of the controlled space;

(ii)   pipe work;

(iii)   Heating, Ventilation and Air Conditioning (HVAC);

(iv)   controlled space personnel access points;

(v)   controlled space penetration points;

(vi)   measures to minimise Electromagnetic Interference (EMI) and maximise Electromagnetic Compatibility (EMC);

(vii)   equipment and material selection, including cable design characteristics;

Note to drafters: Amend the following clause if PURPLE is not applicable to the Contract.

    (viii)   BLACK, RED and PURPLE domains;

    (ix)   physical and electrical segregation, separation and isolation of equipment;

    (x)   grounding and bonding;

    (xi)   Radiofrequency (RF) earth management;

    (xii)   EMSEC controls for emission and conduction; and

    (xiii)   ICT equipment in TOP SECRET areas meets industry and government standards relating to EMI/EMC.

6.2.5 Installation Concepts

6.2.5.1 The ESCP shall describe the installation procedures and policies to be followed during the build phase of the Mission System to ensure that the system complies with EMSEC requirements identified pursuant to clause 6.2.3.1 of this DID. Installation concepts that should be considered in this section include:

    a.   those set out in the Project TRS (if applicable);

    b.   those set out in Sections 3-5 of ACSI 61D; and

    c.   the following specific issues:

        (i)   HVAC distribution;

        (ii)   cable distribution, isolation and routing;

        (iii)   cable design characteristics and modifications;

        (iv)   EMC, EMI and Radiation Hazards (RADHAZ);

        (v)   physical and electrical segregation, separation and isolation of equipment;

        (vi)   screening;

        (vii)   penetration;

        (viii)   filtering;

        (ix)   isolators;

        (x)   RF earthing via an RF earth tree diagram; and

        (xi)   logical system cable flows.

Note: The physical implementation of the EMSEC Control System is detailed in a series of Annexes as described below and are to be completed as the design progresses. The Contractor EMSEC Control Officer is to add any additional Annexes they deem necessary to facilitate the Verification process.

6.2.6 Annex A – Screened Compartment Implementation or Alteration

6.2.6.1 This Annex shall detail any new screened compartments that are required to be constructed and any existing screened compartment that requires alteration for the implementation of the Mission System.

6.2.6.2 This section shall describe how the attenuation characteristics of secure areas will not be degraded by the installation of systems and equipment into the Mission System (eg, through use of EMI/EMC penetrations/filters etc).

6.2.6.3 This Annex shall detail at least the following:

    a.   construction requirements;

    b.   personnel access point;

    c.   HVAC access points;

    d.   power access points; and

e.   cable input / output access points.

6.2.7   Annex B – EMSEC Installation Directives

6.2.7.1   This Annex shall describe boundaries of all secure areas affected by the installation of systems and equipment into the Mission System. This will detail the boundaries of the following areas, including diagrams where applicable:

a.   physical controlled space boundary; and

b.   physical EMSEC boundary.

6.2.8   Annex C – Component Data Pack

6.2.8.1   This Annex shall contain the data files for the systems and equipment installed into the Mission System, which are used to ensure that the Mission System complies with the EMSEC requirements.

6.2.8.2   Components data sheets contained in this annex should include:

a.   power filter data sheets;

b.   telephone filter data sheets;

c.   HVAC waveguide ventilating panels; and

d.   EMC penetration glands.

6.2.9   Annex D – EMSEC Cable Register

6.2.9.1   This Annex shall detail all cables, listing the cable number, cable type and classification that enter or exit any controlled space within the Mission System.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ENG-SOL-HAR-V5.3

2.   TITLE: HAZARD ANALYSIS REPORT

3.   DESCRIPTION AND INTENDED USE

3.1   The purpose of the Hazard Analysis Report (HAR) is to document and communicate the results from a range of hazard analyses for achieving Materiel Safety and Environment related legislative compliance and contractual requirements. With regards to Materiel Safety and within the context of the individual report, the HAR demonstrates the achievement of Safety Outcomes. With regards to the Environment and within the context of the individual report, the HAR demonstrates the achievement of Environmental Outcomes. The HAR is used to report on a range of analyses, including the:

     a.   preliminary hazard analysis,

     b.   system hazard analysis,

     c.   subsystem hazard analysis,

     d.   operating and support hazard analysis,

     e.   health hazard assessment,

     f.   functional hazard analysis,

     g.   system-of-systems hazard analysis, and

     h.   environmental hazard analysis.

3.2   The Contractor uses the HAR to record and present the:

     a.   identified hazards to health, safety and the environment;

     b.   assessment of risks to health, safety and the environment associated with the identified hazards;

     c.   results of calculations, analyses, tests and examinations performed to confirm that:

        (i)   Safety Outcomes will be, or have been, met; and

        (ii)   Environmental Outcomes will be, or have been, met; and

     d.   identified controls and follow-on actions to be used in order to achieve Safety Outcomes and Environmental Outcomes.

3.3   The Commonwealth uses the HAR to:

     a.   understand the hazards and associated risks to health, safety and the environment associated with the Materiel System;

     b.   evaluate the Contractor's proposed controls for the identified hazards and risks;

     c.   assist with evaluating whether:

        (i)   Safety Outcomes will be, or have been, met; and

        (ii)   Environmental Outcomes will be, or have been, met; and

     d.   determine any follow-up actions that need to be undertaken by the Commonwealth in order to achieve Safety Outcomes and Environmental Outcomes.

4.   INTER-RELATIONSHIPS

4.1   The HAR is subordinate to the following data items, where these data items are required under the Contract:

     a.   Systems Engineering Management Plan (SEMP);

b.   System Safety Program Plan (SSPP);

c.   Contractor Engineering Management Plan (CEMP); and

d.   In-Service Materiel Safety Plan (IMSP).

4.2   The HAR inter-relates with the following data items, where these data items are required under the Contract:

a.   Project Management Plan (PMP);

b.   Hazard Log (HL);

c.   Safety Case Report (SCR);

d.   System Specification (SS);

e.   Support System Specification (SSSPEC);

f.   Design Documentation; and

g.   Failure Mode, Effects and Criticality Analysis Report (FMECAR).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

| ARPANSA Radiation Protection Series S-1 | *Standards for Limiting Exposure to Radiofrequency Fields – 100 kHz to 300 GHz (2021)* |
| ARPANSA Radiation Protection Series S-1 | *Advisory Note: Compliance of mobile or portable transmitting equipment (100 kHz to 300 GHz) (2021)* |

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.1.3   When the Contract has specified delivery of another data item that contains aspects of the required information, the data item shall summarise these aspects and refer to the other data item.

6.2   Specific Content

6.2.1   Summary Results

6.2.1.1   The HAR shall include a summary of the results of the hazard analyses, including:

a.   **System/Element Description:** A summary description of the physical and functional characteristics of the system, subsystems or other elements to which the analysis applies. The description shall identify and describe the major elements considered during the analysis and identify the boundaries associated with the elements and to the analysis. Reference to more detailed descriptions, including specifications and design documentation, is included where such documentation is available.

b.   **Hazard analysis methods and techniques:** A description of each method and technique used to conduct the hazard analysis, including the assumptions made, the qualitative and quantitative data used, and traceability to the source data.

c.   **Hazard Analysis Results Summary:** A summary of the significant hazard analysis results including a conclusion about the level of risk identified and that expected to remain after the application of the identified controls and recommendations.

6.2.2 Hazard Analysis Results

6.2.2.1 The data item shall contain the results from the hazard analyses applicable to the type of HAR required, as described by options 1 to 8 below, and in accordance with the Approved SSPP or Approved IMSP, as applicable.

6.2.2.2 Where a HL is required under the Contract and the HL is concurrently accessible to the Commonwealth, then the delivered HAR should minimise duplication and refer to the applicable update / data release of the HL to supplement and form part of the HAR.

6.2.3 Option 1 – Preliminary Hazard Analysis Report

6.2.3.1 When the HAR is to include a Preliminary Hazard Analysis Report (PHAR), the hazard analysis results within the PHAR shall include:

a. the identification and description of each hazard and its associated risks;

b. the severity category, probability of occurrence, and initial Hazard Risk Index (HRI) assigned to each of the hazard's associated risks; and

c. a description of the potential risk mitigation measures.

6.2.4 Option 2 – System Hazard Analysis Report

6.2.4.1 When the HAR is to include a System Hazard Analysis Report (SHAR), the hazard analysis results within the SHAR shall, in respect of subsystems and interrelationships, include:

a. Verification of system compliance with the requirement to achieve Safety Outcomes;

b. previously unidentified hazards associated with the design and the analysis of associated risks;

c. recommended actions to eliminate the previously unidentified hazards and achieve Safety Outcomes;

d. a description of system and subsystem events and the results of associated failure analysis that could create hazards or result in increased risk;

e. the degradation of a subsystem or the total system;

f. design changes that affect subsystem hazards and associated risks;

g. the effects of human errors; and

h. the determination as to:

   (i) the contribution of system hardware and software events on potential mishaps;

   (ii) whether related design requirements in the System Specification (SS) and Support System Specification (SSSPEC), as applicable, have been met; and

   (iii) whether the methods for implementing design requirements and mitigating risk have introduced new hazards.

6.2.5 Option 3 – Subsystem Hazard Analysis Report

6.2.5.1 When the HAR is to include a Subsystem Hazard Analysis Report (SSHAR), the hazard analysis results within the SSHAR shall include:

a. Verification of subsystem compliance with the requirement to achieve Safety Outcomes;

a. previously unidentified hazards and the analysis of the associated risks; and

b. the determination as to:

   (i) the contribution of subsystem hardware and software events on potential mishaps;

   (ii) whether related design requirements in the System Specification (SS) and Support System Specification (SSSPEC), as applicable, have been met; and

(iii)   whether the methods for implementing design requirements and mitigating risk have introduced new hazards; and

c.   recommended actions to eliminate the previously unidentified hazards and achieve Safety Outcomes.

6.2.6   Option 4 – Operating and Support Hazard Analysis Report

6.2.6.1   When the HAR is to include an Operating and Support Hazard Analysis Report (O&SHAR), the hazard analysis results within the O&SHAR shall include:

a.   details of operating and support activities involving known hazards;

b.   required changes to functional and design requirements for system hardware, software and Support Resources, needed to achieve Safety Outcomes;

c.   required features, devices, and equipment needed to achieve Safety Outcomes;

d.   requirements for Personal Protective Equipment (PPE), including details of its limitations with regards to minimising health and safety risks;

e.   requirements for warnings, cautions, and special emergency procedures within Technical Data;

f.   requirements for packaging, handling, storage, and transportation to achieve Safety Outcomes;

g.   requirements for the packaging, handling, storage, transportation, and disposal of Hazardous Chemicals;

h.   Training requirements associated with the reduction of risks;

i.   the effects of non-developmental items with other system components or subsystems;

j.   potentially hazardous system modes under operator control; and

k.   where applicable, details of existing comparable systems that provide background information relevant to operating and support hazard analysis.

6.2.7   Option 5 – Health Hazard Assessment

6.2.7.1   When the HAR is to include a Health Hazard Analysis Report (HHAR), the hazard analysis results within the HHAR shall include:

a.   hazard identification and description, including the exposure pathway to persons (eg, inhalation, absorption) and exposure characterisation (eg, rate of exposure);

b.   severity classification, probability of occurrence and the resulting HRI for each associated risk; and

c.   recommended actions for achieving Safety Outcomes including, where a hazard cannot be eliminated, the risk level(s) expected to be achieved through mitigation.

6.2.7.2   In addition to the requirements of clause 6.2.7.1, if the hazard involves a Hazardous Chemical, the hazard analysis results shall include, for the Hazardous Chemical:

a.   a cross-reference to the Safety Data Sheet (SDS), which shall be prepared in accordance with the requirements of DID-PM-HSE-SDS and delivered to the Commonwealth as supporting information to the HAR;

b.   characteristics, including the quantity and hazard class;

c.   a description of how it is used in each process or system component;

d.   an estimated rate of use within each process or component for the subsystem, system, and the program-wide impact; and

e.   the recommended disposition including, where applicable, possible substitution with less harmful alternatives.

6.2.7.3   In addition to the requirements of clause 6.2.7.1, if the hazard involves ergonomic factors, the hazard analysis results shall include:

a. a description, including all work performance criteria such as:

    (i) physical properties of all system components that personnel will manually handle or wear, or that will support personnel body weight;

    (ii) a task analysis that lists the physical and cognitive actions that personnel will perform during typical operations and routine maintenance; and

    (iii) exposures to mechanical stress encountered while performing work tasks;

    (iv) characteristics in the design of the system or work processes that could degrade performance or increase the likelihood of erroneous actions that may result in mishaps; and

b. requirements to operate and maintain the system from the sum of the physical and cognitive demands imposed on personnel and recommended strategies to reduce these demands through equipment or job redesign when considered necessary.

6.2.7.4 In addition to the requirements of clause 6.2.7.1, if the hazard involves environmental factors, the hazard analysis results shall include:

a. a description of anticipated whole body movement, including whole body vibration, vehicle shock, and motions that are likely to result in musculoskeletal disorders, disorientation, or motion sickness;

b. a description and quantification of the potential for blast overpressure and other sudden barotrauma and the estimated pressure changes, time and rate of onset, and frequency of occurrence;

c. the identity and categorization of the main noise and vibration sources in the new or modified system(s);

d. calculated estimates for noise, blast, and vibration levels and the identification of potential alternative processes and equipment that could minimise the adverse impacts;

e. a description of the anticipated effect of protective equipment and engineering changes, if required, for mitigating personnel exposures to noise and vibration; and

f. a description of the limitations of the protective equipment and the burden imposed with regard to weight, comfort, visibility, and the range of the population that would be accommodated.

6.2.7.5 In addition to the requirements of clause 6.2.7.1, where the hazard involves ionising and/or non-ionising radiation, the hazard analysis results shall include:

a. the physical characteristics of radiation hazards and the physiological processes by which the hazard can affect or harm people as well as the criteria for assessing the resulting risk;

b. an assessment of the RF exposure to personnel against the mandatory limits set in the ARPANSA Radiation Protection Series S-1, *Standard for Limiting Exposure to Radiofrequency Fields – 100 kHz to 300 GHz (2021)*; and

c. where the RF device is designed to be used close to the human body, an assessment of the specific absorption rate against the criteria in ARPANSA Radiation Protection Series S-1, *Advisory Note: Compliance of mobile or portable transmitting equipment (100 kHz To 300 GHz)*.

6.2.8   Option 6 – Functional Hazard Analysis Report

6.2.8.1 When the HAR is to include a Functional Hazard Analysis Report (FHAR), the hazard analysis results included within the FHAR shall include:

a. a decomposition of the system and its related subsystems to the major component level;

b. a functional description of each subsystem and component identified;

c. a functional description of interfaces between subsystems and components;

d.   identified hazards associated with the loss of function, degraded function or a malfunction;

e.   an assessment of the risk associated with each identified failure of a function, subsystem, or component, including severity classification, probability of occurrence and resulting HRI for each risk;

f.   an assessment of whether the functions identified are to be implemented in the design's hardware, software, or human control interfaces;

g.   an assessment of software control category and the assigned software criticality index for each safety-significant software function; and

h.   a list of requirements and constraints, to be included in the SS and/or SSSPEC, as applicable, that when successfully implemented will achieve Safety Outcomes.

6.2.9   Option 7 – System-of-Systems Hazard Analysis Report

6.2.9.1   When the HAR is to include a System-of-Systems Hazard Analysis Report (SOSHAR), the hazard analysis results within the SOSHAR shall include the:

a.   identified unique system-of-systems hazards and traceability of these hazards to architecture locations, interfaces, data, and the stakeholder(s) associated with each hazard;

b.   risk assessment(s) for identified unique system-of-systems hazard(s), and recommend control measures for achieving Safety Outcomes; and

c.   Verification and Validation of results for the effectiveness of recommended risk-mitigation measures.

6.2.10   Option 8 – Environmental Hazard Analysis Report

6.2.10.1   When the HAR is to include an Environmental Hazard Analysis Report (EHAR), the hazard analysis results within the EHAR shall include:

a.   hazard identification and description, as applicable to the system's life-cycle when considering:

(i)   the use of Problematic Substances and Problematic Sources and the generation of environmental contaminants during normal system operations and support functions;

(ii)   demilitarisation and disposal;

(iii)   public health;

(iv)   impact on sea, air and land resources and related ecosystems; and

(v)   inadvertent release of Problematic Substances or other contaminants (eg, via mishap);

b.   severity classification, probability of occurrence and the resulting HRI for each associated risk, including any change to severity class descriptions if applicable;

c.   reference to related documentation (eg, environmental impact statements); and

d.   recommended actions for achieving Environmental Outcomes including, where a hazard to the Environment cannot be eliminated, the risk level(s) expected to be achieved through mitigation.

6.2.10.2   In addition to the requirements of clause 6.2.10.1, if the hazard involves a Problematic Substance, pollutant (including noise) or other contaminant, the hazard analysis results shall include, where applicable:

a.   a cross-reference to the SDS, which shall be prepared in accordance with the requirements of DID-PM-HSE-SDS and delivered to the Commonwealth as supporting information to the HAR;

b.   characteristics, including the relevant quantities and hazard class;

c.   a description of how it is used or generated in each process or system component;

      d.   an estimated rate of use within each process or component for the subsystem, system, and the program-wide impact; and

      e.   the recommended disposition including, where applicable, possible substitution with less harmful alternatives.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ENG-SOL-HL-V5.3

2.   TITLE: HAZARD LOG

3.   DESCRIPTION AND INTENDED USE

3.1   The purpose of the Hazard Log (HL) is to provide a closed-loop hazard tracking system to record the identification, analysis, treatment and management of hazards and their associated risks. The HL provides a repository for the results of hazard analyses and acts as a source of evidence for the evaluation, reporting and, where applicable, certification of Materiel System safety.

3.2   The Contractor uses the HL, consistent with the scope of the Contract, to:

   a.   record and manage identified hazards to health, safety and the environment associated with the Materiel System;

   b.   provide a closed-loop record of the risks to health, safety and the environment associated with the identified hazards;

   c.   record the acceptance and follow-on actions to achieve Safety Outcomes; and

   d.   provide information for hazard analysis reports and inputs into Technical Data, including operator and Maintenance manuals and Training materials.

3.3   The Commonwealth uses the HL:

   a.   to understand the hazards and associated risks to health, safety and the environment associated with the Materiel System,

   b.   to review the Contractor's controls for the identified risks;

   c.   to assist with evaluating whether or not the residual risk is acceptable; and

   d.   as input to any actions arising from the system safety program that need to be undertaken by the Commonwealth with regard to Materiel System implementation.

4.   INTER-RELATIONSHIPS

4.1   The HL is subordinate to the following data items, where these data items are required under the Contract:

   a.   Systems Engineering Management Plan (SEMP);

   b.   System Safety Program Plan (SSPP);

   c.   Contractor Engineering Management Plan (CEMP); and

   d.   In-Service Materiel Safety Plan (IMSP).

4.2   The HL inter-relates with the following data items, where these data items are required under the Contract:

   a.   Project Management Plan (PMP);

   b.   Hazard Analysis Report (HAR);

   c.   Safety Case Report (SCR);

   d.   Materiel Safety Assessment (MSA);

   e.   Health and Safety Management Plan (HSMP);

   f.   design documentation; and

   g.   Failure Mode, Effects and Criticality Analysis Report (FMECAR).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

Nil

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall be based in electronic format acceptable to the Commonwealth (eg, a non-proprietary database), capable of producing outputs for a particular hazard analysis activity (eg, for a Preliminary Hazard Analysis), or each mishap risk and hazard in the HL, or other defined subset of the HL.

6.1.3   When the Contract has specified delivery of another data item that contains aspects of the required information, the data item shall summarise these aspects and refer to the other data item (including, for databases, the appropriate entry records or indices).

6.2   Specific Content

6.2.1   Hazard Log Contents

6.2.1.1   The HL shall include the following information, as relevant to each mishap risk and hazard:

a.   **Hazard Identification:** A unique hazard identification (index) number and brief description that identifies the hazard (eg, 'unintended radiation emitted from radar set waveguide').

b.   **Hazard Description:** A detailed description of the potential/actual hazards inherent in the item being analysed, when resulting from normal or abnormal actions/ mishaps (eg, the hazards associated with the normal handling of a Problematic Substances as well as dealing with a spill of the Problematic Substances). The description is to identify the activities involving the hazard, the time periods, approximate frequency, and the number of personnel involved.

c.   **Problematic Substances:** If hazards are associated with Problematic Substances, the following data shall also be recorded:

(i)   identification of the Problematic Substances, including the common or trade name, chemical name, chemical formula or ingredients, identifying stock numbers, physical form (solid, liquid, gas), current manufacturers, and suppliers;

(ii)   location of the Problematic Substances within the Mission System and Support System Components;

(iii)   quantity of the Problematic Substances within the Mission System and Support System Components, with traceability to version-specific hardware designs;

(iv)   application, process, or activity whereby quantities of the Problematic Substances are embedded into the Mission System or Support System Components, or used during operations and support of the Mission System;

(v)   where a Problematic Substance is generated by the Materiel System, identify the circumstances under which generation occurs (eg, installation, test and evaluation, normal use, maintenance or repair of the system) and the quantity or rate of generation during operations and Maintenance;

(vi)   reasonably anticipated quantities that may be discharged and the anticipated exposure rates during mishaps;

(vii)   toxicity assessment, including a description of the expected frequency, duration, and amount of exposure (include the reference documentation, methods and calculations used to determine potency/toxicity assessment factors);

(viii)   special control, training, handling measures, and Personal Protective Equipment (PPE) needed; and

(ix)   reference to the applicable Safety Data Sheets (SDSs), which shall be prepared in accordance with DID-PM-HSE-SDS and delivered to the Commonwealth with the HL as supporting information.

d.   **Problematic Sources:** If hazards are associated with Problematic Sources, the following data shall also be recorded:

(i)   identification of the Problematic Source, including the name of the item that is or that contains the Problematic Source, the kind of Problematic Source (controlled material or controlled apparatus), type (ie, ionising or non-ionising radiation source) and the frequency or particle nature of the radiation, as applicable;

(ii)   location of the Problematic Source within the Mission System and Support System Components;

(iii)   the intended purpose and function of the Problematic Source;

(iv)   for Problematic Sources that are controlled materials, the element or chemical name and symbol of the nuclide and its atomic mass, physical form (ie, solid, liquid or gas), chemical form (eg, organic compound), activity (in Becquerel), half life, recommended working life; and

(v)   for Problematic Sources that are controlled apparatus, the operating parameters (eg, nominal and peak voltage), output parameters (eg, frequency range, wavelength, class), manufacturer and identification numbers, as applicable.

e.   **Element Failure Mode(s):** Identify all element failure modes which can result in a hazard including human errors, single point and common mode failures. Include the effects of failures and events occurring in other subsystem elements, hazards arising from functional relationships between elements and the potential contribution of other subsystem (including those developed by other contractors/sources, off-the-shelf, non-developmental items, and GFE hardware or software) events, faults, and occurrences (such as improper timing). In the case of functional hazard analysis, consider modes which include the loss of function, degraded function or malfunction, or functioning out of time or out of sequence for the subsystems, components, and interfaces. Failure modes generally answer the question of 'how' it fails.

f.   **Failure Propagation Mode(s):** Describe how the element failure mode can affect other elements, components, subsystems and systems. Identify the interfaces involved. In the case of functional hazard analysis, address functional interfaces in terms of connectivity and functional inputs and outputs. Consider the next effect in a possible mishap sequence until the final mishap outcome.

g.   **System/Element:** Identify the system and element that this analysis is concerned with. For example, if a portion of the analysis applies to a particular subsystem, then identify the parent system and subsystem. In the case of a functional hazard analysis, indicate whether the function is expected to be implemented by hardware, software, or human control interfaces and, where known, identify implementing hardware or software components. Functions allocated to software should be mapped to the lowest level of technical design or configuration item prior to implementation.

h.   **Applicability:** Identification of the version of specific hardware configurations of the system/subsystem or software releases, or Support System Component.

i.   **Requirements references:** Identification details for documents that provide traceability to specifications, where applicable.

j.   **System Event(s) Phase:** Describe the configuration or phase the system is in when the hazard is encountered; for example, during maintenance, during flight, during pre-flight, full-power applied, etc, or it could be encountered in all system events. Describe what is normally expected to occur as the result of operating the system/element during the system event phase.

k.   **Causal factor:** Hardware, software, human, operational environment or other factors contributing to the creation of the hazard or the level of associated risk.

l.   **Effect of Hazard:** Describe the detrimental (upstream and downstream) effects which could be inflicted on the subsystem, system, other equipment, facilities or personnel, resulting from this hazard.

m.   **Hazard Indication:** Identify all warnings or other indications of the presence of the hazard to operational/maintenance personnel.

n.   **Mishap:** Describe an event or series of events resulting in unintentional death, injury, occupational illness, damage to or loss of equipment or property, or damage to the environment.

o.   **Initial Risk Assessment:** Include an assessment of the risk associated with the hazard (classification of severity and probability of occurrence) and the resulting Hazard Risk Index. This is the assessment of the risk prior to taking any action to eliminate or control hazards and associated risks.

p.   **Residual Risk Assessment:** Include an assessment of the residual risk associated with the hazard and the resulting Hazard Risk Index (HRI). This is the assessment of the risk after taking action to achieve Safety Outcomes.

q.   **Event Risk Assessment:** Include an assessment of the risk associated with the hazard, and the resulting HRI, as it applies to a specified hardware/software configuration during an event. Typical events include developmental testing, operational testing, demonstrations, fielding, and post-fielding tests.

r.   **Recommended Action:** Include risk mitigation measures (identified and selected with traceability to version specific hardware configurations or software releases) and recommended actions necessary to achieve Safety Outcomes. Sufficient technical detail is required in order to permit the Contractor and the Commonwealth to consult and adequately develop and assess criteria resulting from the analysis including the identification of:

   (i)   changes needed in functional or design requirements for system hardware, software, facilities, tooling, or support/test equipment;

   (ii)   alternative designs and life cycle cost impact where appropriate. In the case of a functional hazard analysis, identify the requirements and constraints (to be included in the specifications) that, when successfully implemented, will achieve Safety Outcomes (eg, requirements for fault tolerance, detection, isolation, annunciation, or recovery);

   (iii) required warnings, cautions, signage, supervision, access controls, safe work methods and special emergency procedures, including those to be included in operator, materials handling and maintenance manuals, and Training;

   (iv)   requirements for packaging, handling, storage, and transportation;

   (v)   requirements for Personal Protective Equipment (PPE), where needed, and limitations for PPE use; and

   (vi)   any other information related to managing risks to health, safety and the environment.

s.   **Status:** Provide the status of actions to implement the recommended, or other, hazard controls. The status shall include not only an indication of 'open' or 'closed' but also reference to the evidence, including applicable drawing(s), specification(s) and procedure(s), which support closure of the particular hazard.

t.   **V&V method:** The V&V methods for risks and risk reduction following mitigation.

u.   **Owner:** Person(s) and/or organisational element responsible for managing the particular hazard and its associated risks.

v.   **Risk Acceptance:** Record of risk acceptance(s), including:

   (i)   the Contractor's risk acceptance authority by title and organisation, and date of acceptance;

   (ii)   the Commonwealth authority's concurrence, as applicable, by title and organisation, and date of risk acceptance;

(iii)   where applicable, the Approval by the Commonwealth Representative of a Problematic Substance or Problematic Source, within the applicable system or element; and

(iv)   identification details for the signed risk acceptance document(s).

Note: Commonwealth 'risk acceptance' is not Acceptance. It acknowledges Commonwealth concurrence with the Contractor's approach to minimising health, safety and Environmental risks. If a Problematic Substance or Problematic Source is the subject of risk acceptance, the HL records Commonwealth Approval of that Problematic Substance or Problematic Source, within the context of that risk.

w.   **Hazard management log:** A record of the hazard entry and changes made to any part of the hazard record during the system's life-cycle.

x.   **Remarks:**   Include any other information relating to the hazard not covered elsewhere by this DID (eg, applicable documents, previous failure data on similar systems, or administrative directions).

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ENG-SOL-PSECDD-V5.3

2.   TITLE: PHYSICAL SECURITY DESIGN DOCUMENT (PSECDD)

3.   DESCRIPTION AND INTENDED USE

3.1   The Physical Security Design Document (PSecDD) sets out how the design of the Mission System implements the physical security requirements and guidance contained in:

a.   the System Specification (SS) for each different type of Mission System;

b.   the applicable documents identified at clause 5.1; and

c.   any other applicable physical security standards, as determined by the Contractor.

Notes:

- *The earlier version(s) of the PSecDD describe the design approach to satisfy the physical security requirements, while the later version(s) set out the record of the actual implementation of the design to provide one of the artefacts required for Security Authorisation(s) for the physical security for the Mission System.*

- *The Contractor prepares the PSecDD under guidance from the Commonwealth Representative, and the Commonwealth submits the document to the relevant authority(ies) in support of the required Security Authorisation(s) for the physical security of the Mission System.*

3.2   The Contractor uses the PSecDD as one of the physical security artefacts:

a.   to detail the design approaches to be used, or that have been used, to address the physical security requirements as they apply to the Mission System;

b.   to advise the Commonwealth and the associated Security Authorisation authority(ies) for the physical security of the design solution used to address the physical security requirements for the Mission System, including those physical security requirements needed for Information and Communications Technology (ICT) security and cyber security; and

c.   to provide assurance to the Commonwealth that the Contractor's system security program will enable the physical security requirements for the Mission System to be achieved.

3.3   The Commonwealth uses the PSecDD:

a.   to gain assurance that physical security considerations are taken into account during the design and implementation of the Mission System;

b.   to understand and evaluate the Contractor's approach to meeting the physical security requirements for the Mission System as part of the system security program;

c.   to identify and understand the Commonwealth's involvement in the Contractor's physical security program, including the monitoring of the Contractor's program; and

d.   as one of the suite of physical security artefacts provided to the relevant Defence authorities as part of obtaining the required Security Authorisation(s) for physical security for the Mission System.

4.   INTER-RELATIONSHIPS

4.1   The PSecDD is subordinate to the following data items, where these data items are required under the Contract:

     a.   Systems Engineering Management Plan (SEMP);

     b.   Contractor Engineering Management Plan (CEMP);

     c.   Materiel System Security Management Plan (MSSMP);

     d.   In-Service Security Management Plan (ISSMP); and

     e.   ADF regulatory / assurance plans.

4.2   The PSecDD inter-relates with the following data items, where these data items are required under the Contract:

     a.   SS for each different type of Mission System;

     b.   System Architecture Description (SAD);

     c.   the security-related data items required under the Contract (other than those identified under clause 4.1);

     d.   Mission System Technical Documentation Tree (MSTDT); and

     e.   the Verification and Validation (V&V) data items required under the Contract (eg, V&V Plan (V&VP), Verification Cross Reference Matrix (VCRM), and Acceptance Test Reports (ATRs)).

5.   APPLICABLE DOCUMENTS

Note to drafters: Amend the reference documents to suit the requirements of the Contract.

5.1   The following documents form a part of this DID to the extent specified herein:

Governing Security Documents   (see the Glossary for the definition of this term)

     Physical Security Standards – HMA Ships, Submarines & Watercraft, Version 4.0, 17Dec20

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   Introduction

6.2.1.1   The PSecDD shall provide a brief overview of the Mission System, including its purpose.

6.2.1.2   The PSecDD shall describe the purpose, scope and objectives of the PSecDD, including identifying the information required by the Security Authorisation authority(ies) in support of the required Security Authorisation(s) for physical security for the Mission System.

6.2.1.3   The PSecDD shall describe the constraints and assumptions associated with the PSecDD, including in relation to the design and implementation of the physical security requirements.

6.2.1.4   The PSecDD shall set out any conventions used throughout the document to satisfy the requirements of this DID.

6.2.2   Physical Security Threat and Risk Assessment

6.2.2.1   The PSecDD shall set out the physical security threat and risk assessment for the Mission System, as determined in accordance with the processes set out in the Approved MSSMP.

6.2.3   General Requirements

6.2.3.1   The PSecDD shall provide a summary of the physical security requirements to be met by the Mission System, including:

   a.   the requirements contained in the Mission System SS;

   b.   the requirements derived from the applicable documents identified at clause 5.1;

   c.   the physical security threat and risk assessment pursuant to clause 6.2.2 of this DID; and

   d.   any other requirement sources used by the Contractor.

6.2.3.2   The PSecDD shall:

   a.   identify all elements of the Mission System's design that have a bearing on physical security for the Mission System;

   b.   provide an assessment on a building-by-building, room-by-room and/or compartment-by-compartment (as applicable) assessment of the physical security design requirements for the Mission System; and

   c.   summarise all identified security considerations.

6.2.4   Design Description

6.2.4.1   The PSecDD shall describe the design of the Mission System to satisfy the physical security requirements of the Mission System identified pursuant to clause 6.2.3.1 of this DID, including:

   a.   an overview of the design philosophy employed;

   b.   details of the physical security design for each of the Mission System buildings/rooms/compartments, including construction details;

   c.   details on the physical security design associated with following specific subjects:

      (i)   weapons and deployable systems;

      (ii)   Digitally Enabled Systems and Equipment (DESE) and associated networks (eg, to prevent tampering and mitigate cyber-related risks);

      (iii)   drugs and medical supplies;

      (iv)   classified materials, including documentation and equipment;

      (v)   cash and valuables;

      (vi)   attractive areas (ie, attractive targets for theft, misuse or unauthorised access);

      (vii)   key management containers;

      (viii) safes; and

      (ix)   security hardware; and

   d.   any other information required by the Security Authorisation authority(ies) to achieve the required Security Authorisation(s) for physical security.

6.2.4.2   The design description shall include drawings, scenarios of operation, and any other materials needed to set out the physical security design of the Mission System so that the Security Authorisation authority(ies) can properly assess the Mission System as designed.

6.2.5   Physical Security Implementation

6.2.5.1   After construction of the Mission System is complete and as required by the CDRL, the PSecDD shall describe the actual implementation to satisfy the physical security requirements, including:

    a.   the implementation details associated with the items identified under clause 6.2.4 of this DID; and

    b.   the Verification and Validation results that confirm that the physical security requirements identified pursuant to clause 6.2.3.1 of this DID have been satisfied.

Note: At this time, the PSecDD may be renamed to "Physical Security Design Record (PSecDR)".

6.2.5.2   The implementation description shall include any issues that may have arisen due to changes to the physical security requirements that have changed since the design and construction baselines were established.

6.2.5.3   The implementation description shall include drawings, photographs, and any other materials needed to set out the actual physical security implementation details for the Mission System so that the Security Authorisation authority(ies) can properly assess the Mission System as built.

6.2.6   **Physical Security Data Pack**

6.2.6.1   This PSecDD shall identify the Engineering Design Data files (eg, three-dimensional modelling and computer-aided design data) for the systems and equipment installed into the Mission System, which document how the Mission System complies with the physical security requirements.

DATA ITEM DESCRIPTION

1.   **DID NUMBER: DID-ENG-SOL-SAD-V5.3**

2.   **TITLE: SYSTEM ARCHITECTURE DESCRIPTION**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The System Architecture Description (SAD) is a collection of information products that document the architecture of a system. The SAD is expected to include the applicable mandated Integration and Interoperability Framework (I2F) views, additional views and supporting information needed to communicate the architecture of a system to the system stakeholders. The SAD is intended to support the system and software architecture activities required by ISO 15288 and ISO 12207 for software-intensive systems as well as to support risk management activities in relation to security and safety.

3.2   The Contractor developing the SAD uses it to:

     a.   describe the system and its evolution;

     b.   communicate aspects of the system among the system stakeholders; and

     c.   describe the persistent characteristics and supporting principles of a system to inform those involved in proposing and implementing future changes.

3.3   A contractor implementing or modifying the system described by the SAD uses it to:

     a.   understand the system, its persistent characteristics and supporting principles; and

     b.   confirm that a planned or realised system implementation or modification is compliant with the architecture of the system.

3.4   The Commonwealth uses the SAD to:

     a.   evaluate the architecture of a system (proposed or realised);

     b.   develop business plans for transition from a legacy architecture to a new architecture;

     c.   communicate among organisations involved in the acquisition, development, production, fielding, operation and maintenance of the system;

     d.   identify criteria that can be used for certifying conformance of a system implementation to the system architecture;

     e.   provide input to subsequent system-design and system-development activities;

     f.   support the review, analysis and evaluation of the system across the life cycle; and

     g.   provide the basis for the specification for a group of systems sharing a common set of features (eg, a product line).

4.   **INTER-RELATIONSHIPS**

4.1   The SAD is subordinate to the following data items, where these data items are required under the Contract:

     a.   Systems Engineering Management Plan (SEMP); and

     b.   Software Management Plan (SWMP).

4.2   The SAD inter-relates with the:

     a.   Operational Concept Document (OCD); and

     b.   Function and Performance Specification (FPS).

4.3   The SAD also inter-relates with the following data items, where these data items are required under the Contract:

     a.   System Specification (SS) for each Mission System;

b.   Support System Specification (SSSPEC);

c.   Growth Plan (GP); and

d.   the security-related data items required under the Contract.

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

AS/NZS ISO/IEC/IEEE 12207:2019	Systems and software engineering – Software life cycle processes
AS/NZS ISO/IEC/IEEE 15288:2015	Systems and software engineering - System life cycle processes
ISO/IEC/IEEE 42010:2011	Systems and software engineering – Architecture description

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   Terms defined in ISO/IEC/IEEE 42010:2011 retain that meaning in this DID.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   Overview and Background

6.2.1.1   The SAD shall explain the overall purpose and scope of the SAD.

6.2.1.2   The SAD shall describe the function and purpose of the system whose architecture is described in the SAD.

6.2.1.3   The SAD shall summarise the history of system development, operation, and support.

6.2.1.4   The SAD shall describe the criteria used to determine which design decisions are architectural (and therefore included in the SAD) and which design decisions are non-architectural (and therefore documented elsewhere).

6.2.1.5   The SAD shall describe the goals and major contextual factors for the architecture.

6.2.2   Stakeholders and Concerns

6.2.2.1   The SAD shall identify the stakeholders that have been considered in the formulation of the architectural concept for the system, including:

a.   users of the system;

b.   acquirers of the system;

c.   developers of the system; and

d.   maintainers of the system.

Note: A specific list of stakeholders to be considered may be identified in the Statement of Work.

6.2.2.2   The SAD shall identify the stakeholders' concerns that have been considered in the formulation of the architectural concept for the system, including:

a.   the purpose or missions of the system;

b.   the appropriateness of the system for use in fulfilling its missions;

c.   the feasibility of constructing the system;

d.   the risks of system development, operation and support to acquirers, developers, users and supporters of the system; and

e.   the maintainability, deployability, evolvability, and security of the system.

Note: A specific list of concerns to be considered may be identified in the Statement of Work.

6.2.2.3   The SAD should present this information as a matrix, where the rows list stakeholder roles, the columns list concerns, and a cell in the matrix contains an indication of how serious the concern is to a stakeholder in that role.

6.2.3   Architectural Viewpoints

6.2.3.1   The SAD shall identify the viewpoints selected to address the identified stakeholders and their concerns.

Note: Typically these viewpoints would be expected to address:

a.   external behaviour (ie, how the system will behave, from a user's point of view and ignoring internal implementation, in response to each input or condition, including actions the system will perform, inputs the system will accept and outputs it will produce, response times and other performance characteristics, selected equations / algorithms / rules, and handling of unallowed inputs or conditions);

b.   internal behaviour (ie, how the system components interact during system operation, including, as applicable, flow of execution control, data flow, state transition, priorities among components, handling of interrupts, timing and sequencing relationships, exception handling, concurrent execution, dynamic allocation / deallocation, dynamic creation / deletion of objects, processes, tasks, and other aspects of dynamic behaviour);

c.   system criticality (eg, reliability, safety, security, or privacy), flexibility, availability, and maintainability, including the approach to growth capabilities, diagnostic capabilities, and additional hardware capabilities;

d.   interfaces among the components and their interfaces with external entities such as other systems and users, including type and priority, data characteristics (eg, type, size, format, units, possible values, accuracy, precision, priority, timing, frequency, volume, and sequencing), and physical compatibility (eg, dimensions, tolerances, loads, voltages, and plug compatibility); and

e.   communication techniques / methods (eg, communications / network equipment, data transfer rates / capacities, network topologies, transmission techniques, and protocols, communication links / bands / frequencies / media and their characteristics, message formatting, flow control, routing, addressing, and naming conventions, encryption, user authentication, compartmentalisation, and auditing).

6.2.3.2   The SAD shall define each viewpoint, either directly or by reference, and describe the rationale for its use in the SAD.

6.2.3.3   Each stakeholder and each concern identified in the SAD shall be addressed by at least one viewpoint. A stakeholder or concern may be addressed by more than one viewpoint.

6.2.3.4   Each identified viewpoint shall be specified by:

a.   a unique viewpoint name;

b.   the stakeholders addressed by the viewpoint;

c.   the concerns addressed by the viewpoint;

d.   the rationale for the selection of each viewpoint including the extent to which the viewpoint addresses the identified stakeholders and concerns;

e.   the elements, relations, properties and constraints to be used in constructing a view based on the viewpoint;

f.   the language, modelling techniques, or analytical methods to be used in constructing a view based on the viewpoint;

g.   heuristics, patterns, or other guidelines that assist the synthesis of associated views;

h.   the consistency and completeness tests to be applied to the models making up an associated view;

i.   the evaluation or analysis techniques to be applied to the models; and

j.   the source of the viewpoint.

6.2.4 Architectural Views

6.2.4.1   The SAD shall include the architecture views used to describe the system architecture.

6.2.4.2   The SAD shall include at least one view for each viewpoint identified in the SAD.

6.2.4.3   Each view shall correspond and conform to exactly one of the viewpoints identified in the SAD.

6.2.4.4   Each view shall include:

a.   a unique identifier for the view;

b.   the applicable viewpoint;

c.   the stakeholders addressed by the view;

d.   the concerns addressed by the view; and

e.   any decisions reflected in the view together with the supporting analysis and rationale for the decision.

6.2.5 Relationships Among Architectural Views

6.2.5.1   The SAD shall describe the relationships (eg, mappings) among the presented architectural views that bring the views together to convey additional information about the system architecture.

6.2.5.2   The SAD shall discuss the consistency among the views and identify any known inconsistencies among the architectural views presented.

6.2.5.3   For each set of views related to each other, the SAD shall show how the elements in one view are related to elements in another view.

6.2.6 Architecture Constraints and Rationale

6.2.6.1   This section shall contain the rationale for any architectural decisions that either span multiple architectural views or affect the entire architecture, including:

a.   any alternatives that were considered and the reasons why they were rejected;

b.   any constraints that directly or indirectly affected the decisions;

Note: Constraints include existing requirements, organisational constraints, funding constraints, political pressures, and vendor associations, etc.

c.   the issues, effects, or constraints that the chosen decision has or imposes on future life-cycle activities; and

d.   any evidence gathered that vindicates the decision taken, including the results of any quantitative or qualitative analyses that have been performed that provide evidence that the system architecture is fit for purpose.

6.2.6.2   The SAD shall identify the requirements (original or derived) addressed by the architecture and where each of these requirements is addressed in the architecture.

6.2.7 System Evolution

6.2.7.1   The SAD shall detail how the system covered by the SAD is planned or likely to evolve.

6.2.7.2   The SAD shall include a list of all known planned or likely variants of the system, subsystem or components to be produced, delivered and supported throughout the evolution of the system, including those identified in the GP (if such a plan exists).

6.2.7.3 Where Materiel System Increments are applicable to the Contract, the SAD shall identify, for each identified variant, the Materiel System Increment(s) in which the variant will be delivered.

DATA ITEM DESCRIPTION

1.	**DID NUMBER:**	**DID-ENG-SOL-SCR-V5.3**

2.   TITLE: SAFETY CASE REPORT

3.   DESCRIPTION AND INTENDED USE

3.1   The Safety Case Report (SCR) documents a comprehensive evaluation, at the time of the report, of the mishap and safety hazards and their associated risks prior to test or operation of the system, following system modification, or prior to the Acceptance of Mission Systems and applicable Support System Components. The SCR, including by reference to other system-safety related data items (which in totality form the 'Safety Case'), identifies the hazards, associated risks, and measures to ensure that hazards have been eliminated so far as is reasonably practicable or, if it is not reasonably practicable to eliminate hazards, the measures to eliminate (or, otherwise, minimise) the associated risks so far as is reasonably practicable – in summary, all of the evidence needed to demonstrate that Safety Outcomes have been, or will be[1], met. The SCR documents the consultation outcomes between the Commonwealth and Contractor and formal risk acceptance decisions made.

3.2   The Contractor uses the SCR to present an argument, supported by a body of evidence, to show that:

a.   when used in relation to the Acceptance of Supplies, the Materiel System is safe for the purposes which are expressly stated, as Safety Outcomes have been met;

b.   the applicable safety requirements, including relevant Australian legislation, design rules, standards, and codes of practice, have been satisfied; and

c.   the safety requirements established by any applicable certification authorities have been satisfied.

3.3   The Commonwealth uses the SCR:

a.   to determine that the system hazards to health and safety have been identified and that Safety Outcomes have been, or will be, met;

b.   to determine that the associated certification requirements have been satisfied;

c.   when applicable, as a basis for evaluating Materiel Safety prior to the Acceptance of Supplies;

d.   to obtain necessary safety certifications from Defence regulatory and safety authorities; and

e.   as the basis for assessing and managing health and safety risks throughout the system's life-cycle.

4.   INTER-RELATIONSHIPS

4.1   The SCR inter-relates with the following data items, where these data items are required under the Contract:

a.   Project Management Plan (PMP);

b.   Systems Engineering Management Plan (SEMP);

c.   System Safety Program Plan (SSPP);

d.   In-Service Materiel Safety Plan (IMSP);

e.   Software Management Plan (SWMP);

f.   Hazard Analysis Report (HAR); and

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[1] Reference to 'will be' acknowledges that some measures can only be established through Defence processes and training.

g.   Hazard Log (HL).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   When the Contract has specified delivery of another data item that contains aspects of the required information, the SCR shall summarise these aspects and refer to the other data item as part of the body of evidence.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   General

6.2.1.1   The SCR shall comprise a comprehensive and structured body of evidence that demonstrates, by reasoned argument, that the delivered Materiel System is suitable for Acceptance with respect to Materiel Safety.

6.2.1.2   The SCR shall include an executive summary.

6.2.1.3   Subject to clause 6.1.2, the SCR shall provide a description of the Materiel System to which the Safety Case relates, including:

a.   the applicable configuration(s), roles, functions and environments, system boundaries, major and safety-critical components and areas of safety-related risk that are worthy of particular attention; and

b.   where relevant, any interfaces and interactions with other systems and personnel that may present safety-related interface risks that cannot be managed by a single Contractor or Commonwealth entity.

6.2.2   System Safety Program

6.2.2.1   The SCR shall provide a description of the system-safety program employed by the Contractor to provide assurances as to the integrity of the process used to develop and update the Safety Case, including the current assessment of Materiel Safety.

6.2.2.2   The description of the system-safety program shall summarise the analyses performed to achieve Safety Outcomes, which is to include:

a.   the safety engineering and safety management processes employed to meet the safety-related requirements of the Contract;

b.   internal and external audits conducted during the development of the Supplies to provide assurances that the system-safety management system was implemented as defined;

c.   details of relevant design and safety certificates or licences; and

d.   the responsibilities and accountabilities of Key Persons involved in the safety engineering and safety management program.

6.2.2.3   The SCR shall summarise the requirements, criteria and methodology used to classify and rank hazards, including any assumptions on which the criteria or methodologies were based or derived including the definitions for the hazard risk indices and of acceptable risk. Where data for extant subsystems, components and interfaces were incorporated into the analysis, the SCR shall summarise how that existing data was validated and, if necessary, adapted for the configuration, role and environment applicable to the Materiel System.

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6.2.3   Materiel Safety Assessment

6.2.3.1   The SCR shall demonstrate, through assessment based on objective quality evidence, how the Materiel System achieves safety-related requirements specified under the Contract, the requirements of relevant Australian legislation, codes of practice, civil and Defence regulatory requirements, and applicable design and safety standards.

6.2.3.2   The SCR shall contain the objective quality evidence used to demonstrate Materiel Safety including:

a.   a list of all safety-related risks with a residual (ie, post-treatment) risk level (as documented in the hazard risk index) of medium or above, or as otherwise defined in the Approved SSPP;

b.   subject to clause 6.1.2, the Hazard Log;

c.   subject to clause 6.1.2, results of the hazard analyses conducted;

d.   subject to clause 6.1.2, the details of any calculations, analyses, tests or examinations necessary to demonstrate that Safety Outcomes have been, or will be, met including the actions undertaken to:

(i)   identify system hazards that could give rise to risks to health and safety, and the associated risks to health and safety;

(ii)   evaluate the actions taken to eliminate the hazards and associated risks to health and safety so far as is reasonably practicable and, where elimination is not reasonably practicable, to minimise the associated risks to health and safety so far as is reasonably practicable; and

(iii)   validate safety criteria, requirements and analyses;

e.   subject to clause 6.1.2, recommendations applicable to hazards at, or caused by, the interface between the Supplies and other system(s), where applicable;

f.   for the Mission System subsystems (eg, pressure vessels) and Support System Components (eg, hoists, cranes) included in the Supplies that are or that contain items of plant where registration of the design of that plant is required under WHS Legislation[2], copies of the registration documents provided by the Commonwealth, State or Territory regulator;

g.   evidence that all applicable certifications (other than Australian design registration details included in the SCR in accordance with clause 6.2.3.2f) and necessary safety-related compliance assurance activities, as required by applicable third party regulatory and safety authorities, have been met;

h.   a list of all pertinent reference materials including reports, standards and regulations, specifications and requirements documents, design documentation, Safety Data Sheets, and operating, maintenance and other manuals; and

i.   subject to clause 6.1.2, any additional supporting evidence reasonably required by the Commonwealth for the purposes of demonstrating Materiel Safety.

6.2.3.3   The SCR shall contain a summary statement, signed by the Contractor's technical authority, declaring that the system's Materiel Safety requirements have been met and the system's readiness for test, to operate or to otherwise proceed to the next phase of its life cycle.

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[2] Refer to Part 5.3 of the *WHS Regulations 2011* (Cth).

DATA ITEM DESCRIPTION

1.   **DID NAME: DID-ENG-SOL-SRMP-V5.3**

2.   **TITLE: SECURITY RISK MANAGEMENT PLAN**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The Security Risk Management Plan (SRMP) is used to identify and track threats to Information and Communications (ICT) security and cyber security, the associated risk assessments, the risk treatment options, and the existing and proposed risk controls associated with a Security System-of-Interest (SSoI) (eg, the Mission System), including during development, Verification and Validation (V&V), commissioning, operation and support, so that Defence is able to understand the level of risk exposure posed by the system. The Approved governing plan (eg, Materiel System Security Management Plan (MSSMP) or In-Service Security Management Plan (ISSMP)) provides the plan and associated processes for managing the risks associated with ICT security and cyber security, while the SRMP addresses only the risk assessment aspects of ICT/cyber-security risk management for the Targets of Security Assessment (ToSAs) for a SSoI. This includes the Digitally Enabled Systems and Equipment (DESE) within each SSoI.

Note: This DID has been written on the basis that all ToSAs for a SSoI will be addressed within a single SRMP (including when the ToSA and the SSoI are one and the same). Where this is not the case, such as may occur for larger Mission Systems (eg, aircraft or ship), the requirements of the DID should be interpreted in the context of the set of SRMPs and associated ToSAs. The ToSAs are either identified in the Approved governing plan or in the System Security Plan(s) (SSP(s)) for a SSoI.

3.2   The SRMP serves two purposes:

a.   during the design and implementation phases for a SSoI, it provides a supporting artefact for the design process, describing the risk assessment and proposed risk treatments for the identified threats, to demonstrate that the ICT/cyber-security controls are suitable and sufficient and the SSoI is likely to be assessed to be As Secure As Reasonably Practicable (ASARP); and

b.   during the Security Authorisation assessment phases for a SSoI, it provides a consolidated reference or summary of the risk basis underpinning the ICT/cyber-security controls that have or have not been implemented, and is one of the artefacts for obtaining the required Security Authorisations for ICT security and cyber security.

3.3   The Contractor uses the SRMP:

a.   to document the ICT/cyber-security threats and associated risk assessments for a SSoI;

b.   to document the risk-treatment options and associated plans, the existing and proposed risk controls, the controls not implemented and not proposed to be implemented, and the residual risk exposure;

c.   to advise the Commonwealth and the ICT and cyber Security Authorisation assessor(s) of the ICT/cyber-security threat and risk assessments associated with a SSoI/ToSA during the design, implementation and assessment phases; and

d.   as one of the ICT/cyber-security artefacts to provide assurance to the Commonwealth that the Contractor's ICT/cyber-security activities will enable the Security Outcomes for a SSoI to be achieved, particularly to demonstrate that the SSoI/ToSA is ASARP.

3.4   The Commonwealth uses the SRMP:

a.   to understand, assess and manage ICT/cyber-security risks associated with a SSoI, including to review the Contractor's controls for the identified risks and to assist with evaluating whether or not the residual risk is acceptable;

b.   to understand and evaluate the Contractor's approach to meeting the ICT/cyber-security requirements of the Contract as part of the system security program,

including to understand the Commonwealth's involvement in the Contractor's ICT/cyber-security program;

c. as an input to its own planning, including to identify any actions arising from the system security program that need to be undertaken by the Commonwealth with regard to the implementation of a SSoI; and

d. as one of the suite of ICT/cyber-security artefacts provided to the relevant security authorities as part of obtaining the required ICT and cyber Security Authorisations for a SSoI.

4. INTER-RELATIONSHIPS

4.1 The SRMP is subordinate to the following data items, where these data items are required under the Contract:

a. Systems Engineering Management Plan (SEMP);

b. Contractor Engineering Management Plan (CEMP);

c. Materiel System Security Management Plan (MSSMP);

d. In-Service Security Management Plan (ISSMP);

e. System Safety Program Plan (SSPP); and

f. In-service Materiel Safety Plan (IMSP).

4.2 The SRMP inter-relates with the following data items, where these data items are required under the Contract:

a. System Specification (SS) for each different type of SSoI;

b. the security-related data items required under the Contract (other than those identified under clause 4.1); and

c. the safety-related data items (eg, Hazard Log and Safety Case Report (SCR) or Materiel Safety Assessment (MSA)).

5. APPLICABLE DOCUMENTS

5.1 The following documents form a part of this DID to the extent specified herein:

Note to drafters: Amend the following list of Applicable Documents to suit the requirements of the Contract. Do not include documents that are included within the 'Governing Security Documents'.

Governing Security Documents	(see the Glossary for the definition of this term)
NIST CSF 2.0	National Institute of Standards and Technology (NIST) Cybersecurity Framework (CSF), Version 2.0, February 26, 2024
NIST SP 800-30	Guide for Conducting Risk Assessments, Revision 1, September 2012
NIST SP 800-37	Risk Management Framework for Information Systems and Organizations: A System Life Cycle Approach for Security and Privacy, Revision 2, December 2018
NIST SP 800-53	Security and Privacy Controls for Information Systems and Organizations, Revision 5, September 2020
NIST SP 800-53A	Assessing Security and Privacy Controls in Information Systems and Organizations, Revision 5, January 2022
NIST SP 800-82	Guide to Operational Technology Security, Revision 3, September 2023
ISA/IEC 62433 series	Security for Industrial Automation and Control Systems

ISO/IEC 27005:2022   Information security, cybersecurity and privacy protection –
Guidance on managing information security risks

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   Subject to clause 6.1.2, the data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   Where a SRMP is required for an ICT Security Authorisation, the format and content requirements for the SRMP shall comply with any template for a SRMP issued by Defence in addition to the content requirements set out in clauses 6.1.3 to 6.1.7 and clause 6.2 of this DID.

Note to drafters: The SRMP implements the risk processes defined in the Approved governing plan. Attention is drawn to the Note to drafters in the MSSMP and ISSMP DIDs, which highlights the implications associated with the selection of either the CASG 5x5 matrix or the PSPF 6x6 matrix as the basis for these risk processes.

6.1.3   The SRMP shall be consistent with and, where applicable, comply with the Governing Security Documents. The SRMP shall accord with the risk management framework documented in the Approved governing plan (eg, SEMP, MSSMP or ISSMP), as applicable.

6.1.4   Where the Approved governing plan identifies that more than one SRMP will be developed to address the ToSAs within an SSoI, each SRMP shall identify the full scope of ToSAs and the associated SRMPs for the SSoI, including the relationships between them (if any).

6.1.5   While early versions of the SRMP for a SSoI may contain threats and risk assessments for one or more components of, or ToSAs for, a SSoI, the final version of the SRMP for a SSoI shall contain the complete set of threats and associated risk assessments for all ToSAs within the SSoI.

6.1.6   When the Contract has specified delivery of another data item that contains aspects of the required information, the SRMP should summarise these aspects and refer to the other data item.

6.1.7   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content – Part 1

6.2.1   Executive Summary

6.2.1.1   The SRMP shall include a system-level summary of the SRMP, including:

a.   an overview of the ToSAs and the SSoI being assessed;

b.   a brief description of the risk-assessment process that has been undertaken, cross-referring to the Approved governing plan, as appropriate;

c.   a summary table of the threats considered alongside the severity of risk exposures associated with these threats; and

d.   the significant conclusions of the SRMP.

6.2.2   Scope

6.2.2.1   The SRMP shall define the scope of the threat and risk assessment that has been undertaken, identifying the SSoI, the ToSAs addressed by the SRMP, the associated SSP(s), and the SSoI assets under threat.

6.2.2.2   The SRMP shall identify the stakeholders associated with the SSoI and the ToSAs, including the System Owner, project sponsor, acquirer, user, developer, support agencies, and the relevant authorities for each different type of required Security Authorisation.

6.2.2.3   The SRMP shall identify any assumptions and constraints associated with the threat and risk assessments conducted for the ToSAs and/or the SSoI, including any factors relating

to the SRMP which are assumed but not confirmed and which have constrained the assessment of security risk for the ToSAs/SSoI.

6.2.3   Threat and Risk Assessment

6.2.3.1   The threat and risk assessment elements of the SRMP shall describe how the Applicable Documents listed at clause 5 have been utilised to ensure that the SRMP will achieve the purposes and required outcomes set out in clause 3.

6.2.3.2   The SRMP shall describe the threat identification and modelling methodology applied (eg, attack trees, MITRE ATT&CK® framework, STRIDE[1] threat model, context analysis, operational scenario analysis, or a combination of methodologies), including the use of threat intelligence sources and reporting.

Note: In addressing the following requirement, the SRMP only needs to address the most applicable threats relevant to the SSoI (or element thereof) and its operating context.   The analysis should be informed by both cyber threat intelligence reporting and knowledge of the SSoI design and the associated operational and support concepts.

6.2.3.3   The SRMP shall identify and describe the threats applicable to the scope of the assessment addressed through the SRMP, including identifying the risk threat profile that will help to predict potential future attacks and/or attack trends applicable to the SSoI.

6.2.3.4   The SRMP shall address ICT/cyber-security risks in relation to:

   a.   confidentiality, integrity and availability of systems and data; and

   b.   the cyber-security functions of Identify, Protect, Detect, Respond and Recover (as these terms are defined in NIST CSF 2.0).

6.2.3.5   For each identified threat, the SRMP shall include the following information:

   a.   threat title and unique identifier;

   b.   threat description, including threat type and characteristics, including the causes of the threat (ie, what needs to occur for the threat to eventuate);

   c.   threat source(s) (ie, the sources (malicious or otherwise) likely to realise the threat, including the actors or agencies behind the threat (if known));

   d.   asset(s) affected (ie, which systems, subsystems and assets identified in the 'scope' section are vulnerable to the threat), including any potential downstream or upstream implications for other systems that interact with, or interface to, the SSoI/ToSA;

   e.   overview (ie, a short description of how the threat sources and affected assets link to the threat for the ToSAs/SSoI, including how the threat accesses or compromises the system, subsystem or asset, or what circumstances, phases or locations does the threat present itself);

   f.   likelihood of occurrence;

   g.   consequence of realisation in terms of confidentiality, integrity and availability of systems and data, and the impacts of these consequences on the mission, safe operation of the ToSAs/SSoI, information security, or some other function or combination of functions;

Notes:

a.   The information provided in response to the following requirement will evolve as the design and implementation of the ToSA/SSoI progresses (ie, as a control to be implemented becomes an existing control).

b.   The Approved SSP will identify the publications from which the controls have been derived, which will include the ISM and DSPF and any complementary publications (eg, NIST SP 800-82 or ISA-62443 series) agreed by the Commonwealth.

   h.   controls to be incorporated, including:

      (i)   existing controls (ie, the controls already implemented in the ToSA/SSoI);

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[1] STRIDE is an acronym for six threat categories: Spoofing identity, Tampering with data, Repudiation threats, Information disclosure, Denial of service and Elevation of privileges

       (ii)   other controls that the Contract intends to implement, either fully or partially;

       (iii)   other available controls that the Contractor does not intend to implement (either fully or partially),

as set out in the associated SSP(s), including the Contractor's assessment as to whether the controls are effective at managing the threats/risks to the SSoI;

i.   resultant risk exposure;

j.   treatment option (ie, acceptance, reduction, transfer or avoidance);

k.   treatment recommendation(s);

l.   residual likelihood of occurrence after the identified treatment recommendations, which involve implementation actions, have been implemented;

m.   residual consequence of realisation after the identified treatment recommendations, which involve implementation actions, have been implemented; and

n.   residual risk exposure.

6.2.3.6   For all threats that affect the safe operation and/or support of the SSoI, the risk assessments and associated controls for these threats shall be entered into the Hazard Log element of the SCR/MSA, and managed in accordance with the Approved SSPP. The SRMP shall identify the specific ICT/cyber threats and risk assessments that are being managed through the system safety program.

6.2.3.7   The SRMP shall propose security controls for each risk for which the risk-treatment option is to reduce the likelihood and/or reduce the consequence.

6.3   Specific Content – Part 2

Note: During the Security Authorisation assessment phases for a SSoI, the following elements of the SRMP will provide input information for the Plan Of Action and Milestones (POAM), which will be developed by the Commonwealth as one of the required artefacts for obtaining the Security Authorisations for ICT security and cyber security.

6.3.1   Risk Treatment Planning

6.3.1.1   The SRMP shall set out the Contractor's risk-treatment plan for each risk for which the risk-treatment option is to either:

a.   reduce the likelihood and/or reduce the consequence; or

b.   avoid the risk, but a change to the design of the SSoI is required to enable such avoidance to occur,

with the aim of demonstrating that these risk-treatment plans, once implemented, will be sufficient to ensure that the SSoI will be ASARP.

6.3.1.2   Each risk-treatment plan shall include:

a.   the position responsible;

b.   a brief description of the required scope of work;

c.   the envisaged schedule for implementation, including the associated milestones;

d.   the likely resources;

e.   the envisaged cost; and

f.   any other relevant information (eg, implementation risks and Verification activities).

6.3.2   Residual Risk Exposure

6.3.2.1   The SRMP shall record whether the residual risk exposure associated with each threat has been accepted by the Commonwealth in support of:

a.   if applicable, ICT Security Authorisation for the SSoIs (or elements thereof); and

b.   cyber Security Authorisation for the SSoIs (or elements thereof).

6.3.2.2   The record of risk acceptance required under clause 6.3.2.1 shall include:

a.   the Contractor's risk acceptance authority by title and organisation, and date of acceptance;

b.   the Commonwealth authority's concurrence or non-concurrence, as applicable, by title and organisation, and date of risk acceptance; and

c.   identification details for the signed risk acceptance document(s).

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ENG-SOL-SSOP-V5.3

2.   TITLE: SECURITY STANDARD OPERATING PROCEDURE

3.   DESCRIPTION AND INTENDED USE

3.1   Security Standard Operating Procedures (SSOPs) provide step-by-step guidance to be followed by each different role (eg, system administrator and system operator) required to undertake security-related tasks and processes for a Security System-of-Interest (SSoI) (eg, Mission System) when the SSoI is being operated and sustained. The SSOPs address Information and Communications Technology (ICT) security, cyber security and, if applicable, physical security, and Emanation Security (EMSEC). SSOPs supplement the information provided in the associated System Security Plan(s) (SSP(s)) and the In-Service Security Management Plan (ISSMP) to:

a.   ensure that all parties involved in operating, supporting and managing a SSoI understand their roles and responsibilities in relation to security;

b.   assist with mitigating the risks associated with security threats;

c.   assist with ensuring that security threats and incidents are appropriately managed and the impacts on the operations of a SSoI are minimised; and

d.   assist with managing and maintaining Security Authorisations over the life of the SSoI.

3.2   The Contractor uses the SSOPs:

a.   to document the procedures required to undertake security related tasks and processes for a SSoI; and

b.   as one of the security artefacts to provide assurance to the Commonwealth that the Contractor's security activities will enable the required Security Authorisations for a SSoI to be achieved.

3.3   The Commonwealth uses the SSOPs:

a.   to gain assurance that the Contractor has a sound security program in place that complies with applicable Government and Defence security requirements and policies;

b.   to understand and evaluate the Contractor's approach to meeting the security requirements of the Contract as part of the system security program;

c.   to identify and understand the Commonwealth's involvement in the Contractor's security program, including the monitoring of the Contractor's program;

d.   as an input to its own planning, including in relation to attaining the required Security Authorisations for the SSoI covered by the SSOPs; and

e.   as one of the suite of security artefacts provided to the relevant Defence authorities as part of obtaining the required Security Authorisations for a SSoI.

4.   INTER-RELATIONSHIPS

4.1   SSOPs are subordinate to the following data items, where these data items are required under the Contract:

a.   Systems Engineering Management Plan (SEMP);

b.   Contractor Engineering Management Plan (CEMP)

c.   Integrated Support Plan (ISP);

      d.   Materiel System Security Management Plan (MSSMP);

      e.   In-Service Security Management Plan (ISSMP);

      f.   System Safety Program Plan (SSPP); and

      g.   In-service Materiel Safety Plan (ISMP).

4.2   SSOPs inter-relate with the following data items, where these data items are required under the Contract:

      a.   System Specification (SS) for each different type of SSoI;

      b.   the security-related data items required under the Contract (other than those identified under clause 4.1 (eg, SSP));

      c.   the safety-related data items (eg, Safety Case Report (SCR) and Hazard Log); and

      d.   Verification and Validation (V&V) data items, such as the V&V Plan (V&VP), Verification Cross Reference Matrix (VCRM), Acceptance Test Plans (ATPs), and Acceptance Test Reports (ATRs).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

      Governing Security Documents   (see the Glossary for the definition of this term)

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   Subject to clause 6.1.2, the data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   Where a set of SSOPs is required for an ICT Security Authorisation, the format and content requirements for the SSOPs shall comply with any template for a SSOP issued by Defence in addition to the content requirements set out in clauses 6.1.3-6.1.5 and clause 6.2 of this DID.

6.1.3   The set of SSOPs for a SSoI shall provide sufficient information to satisfy the objectives and purposes set out in clause 3, including to ensure that the information provided in the SSOPs is suitable for the applicable stages of the security design and implementation activities and the Security Authorisation requirements for the SSoI.

6.1.4   Each SSOP shall be consistent with and, where applicable, comply with the Applicable Documents identified at clause 5.

6.1.5   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

Note: Where there are classified aspects to the employment of an SSoI that have not been provided to the Contractor (eg, utilisation of the Mission System in a tactical environment), the Commonwealth will need to supplement the SSOPs provided by the Contractor to incorporate this information before the SSOPs are issued for use.

6.2.1   Scope

6.2.1.1   Each SSOP shall set out the scope of coverage of the SSOP as it relates to the SSoI.

6.2.1.2   Each SSOP shall identify the set of SSOPs for a SSoI, showing how this SSOP integrates with the set of SSOPs.

6.2.2   Roles

6.2.2.1   The SSOPs shall identify the set of roles that have security responsibilities for the SSoI (eg, security manager, security officer, system administrator, system operator and system support staff) to meet the requirements of the SSP and related documents.

6.2.2.2   For each identified role, the SSOPs shall address any specific security-related requirements and/or restrictions, such as identifying:

a.   the security clearance requirements and any security-related restrictions (eg, with respect to dual nationality or particular 'eyes only');

b.   the personnel who are or will be 'authorised' or 'emergency authorised' or who are 'un-authorised' personnel; and

c.   any role-specific restrictions (eg, limitations on duration in roles, whether individuals can perform multiple roles, and conflicting roles).

6.2.3   Procedures

6.2.3.1   The SSOPs shall document the step-by-step requirements and guidance that must be followed by the individuals performing the roles identified through clause 6.2.2 to meet the requirements of the SSP and related documents.

6.2.3.2   In meeting the requirements of clause 6.2.3.1, the set of SSOPs shall address the following procedural requirements, as allocated to each of the identified roles:

a.   physical security aspects, such as:

(i)   monitoring and managing access control;

(ii)   identification and management of personnel authorised for entry, distribution and security of physical keys; and

(iii)   the management and storage of cryptographic keying material;

b.   access and account management;

c.   training, including on-the-job training, in relation to security induction, awareness, responsibilities, incident response, and other matters pertinent to the management, operation and support of the SSoI;

d.   security Preventive Maintenance activities (eg, updating anti-virus software; managing removable media; data backup; event log monitoring; and checking the integrity of physical security devices, EMSEC protection measures, and system software);

e.   security Corrective Maintenance activities (eg, recovering from a system failure caused by a security incident);

f.   managing security incidents, including:

(i)   reporting security incidents; and

(ii)   ensuring that evidence is protected and not lost, deleted or corrupted;

g.   disaster recovery;

h.   system updates and upgrades, including Software Configuration Management and Software Release management;

i.   supply chain security; and

j.   general security matters applicable to all system users and maintainers, such as:

(i)   who has responsibility for which aspects of security;

(ii)   warnings that user's actions may be audited and users will be held accountable for their actions;

(iii)   guidelines on choosing and protecting passwords;

(iv)   guidelines on enforcing need-to-know on the system;

(v)   what to do in the case of a suspected or actual security incident;

(vi)   the highest level of classified material that can be processed on the system and handling procedures for classified information;

(vii)   start of day/shift/operations;

(viii)   securing the system or workstation when temporarily absent;

(ix)   securing the system or workstation at the end of the day/shift/operations;

(x)   controlling and sanitising media;

(xi)   adding, removing, decommissioning and undertaking destruction of equipment and media;

(xii)   physical data transfer between network enclaves or environments;

(xiii)   labelling, handling and disposing of hardcopy;

(xiv)   preventing overview of data by visitors;

(xv)   what to do for hardware and Software Maintenance; and

(xvi)   other operational and security tasks and activities as allocated by the system managers/authorities.

DATA ITEM DESCRIPTION

1.   **DID NAME: DID-ENG-SOL-SSP-V5.3**

2.   **TITLE: SYSTEM SECURITY PLAN**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The System Security Plan (SSP) describes a Security System-of-Interest (SSoI) (eg, Mission System) and/or its Targets of Security Assessment (ToSAs) from the perspectives of Information and Communications (ICT) security and cyber security. This includes the implementation and operation of security controls, practices and procedures required to secure the SSoI at an acceptable level of risk in accordance with the Governing Security Documents. The SSP is derived by selecting all relevant security controls from the Australian Government Information System Manual (ISM) and the Defence Security Policy Framework (DSPF), with additional security controls based on the security risks identified in the Approved Security Risk Management Plan(s) (SRMP(s)). A SSP is raised for one or more ToSA(s) within a SSoI.

Note: This DID has been written on the basis that all ToSAs for a SSoI will be addressed within a single SSP (including when the ToSA and the SSoI are one and the same). Where this is not the case, such as may occur for larger Mission Systems (eg, aircraft or ship), the requirements of the DID should be interpreted in the context of the set of SSPs and associated ToSAs. The ToSAs are either identified in the Approved governing plan for system security or in the System Overview section of this data item.

3.2   The SSP serves two purposes:

a.   during the design and implementation phases for a SSoI, it provides a supporting artefact for the design process, describing the security architecture and identifying the ICT/cyber-security controls, practices and procedures that are planned to be implemented and identifies any associated operational and support implications; and

b.   during the Security Authorisation assessment phases for a SSoI, it provides a consolidated reference or summary of the ICT/cyber-security controls, practices and procedures that have been implemented, and is one of the required artefacts for obtaining the required Security Authorisations for ICT security and cyber security.

3.3   The Contractor uses the SSP:

a.   to describe a SSoI from a ICT/cyber-security perspective to ensure that the scope of ICT/cyber-security activities is clear to all parties and to assist with the identification of security-related risks and vulnerabilities;

b.   to document the relevant security controls that will be, or have been, implemented (in full or in part) to address the ICT/cyber-security risks for each SSoI;

c.   to describe the implementation and operation of the identified security controls to enable the required ICT and cyber Security Authorisations to be achieved for the SSoI;

d.   to describe the plan to Verify that the implemented controls for a SSoI have been properly implemented and are effective; and

e.   as one of the ICT/cyber-security artefacts to provide assurance to the Commonwealth that the Contractor's ICT/cyber-security activities will enable the ICT/cyber-security requirements for the SSoI to be achieved.

3.4   The Commonwealth uses the SSP:

    a.   to gain assurance that the Contractor has a sound ICT/cyber-security program in place that complies with applicable Government and Defence security requirements and policies;

    b.   to understand and evaluate the Contractor's approach to meeting the ICT/cyber-security requirements of the Contract as part of the system security program in the SOW;

    c.   to identify and understand the Commonwealth's involvement in the Contractor's ICT/cyber-security program, including the monitoring of the Contractor's program;

    d.   as an input to its own planning for the project, including in relation to attaining the required ICT and cyber Security Authorisations for a SSoI; and

    e.   as one of the suite of ICT/cyber-security artefacts provided to the relevant Defence authorities as part of obtaining the required ICT and cyber Security Authorisations for a SSoI.

4.   INTER-RELATIONSHIPS

4.1   The SSP is subordinate to the following data items, where these data items are required under the Contract:

    a.   Systems Engineering Management Plan (SEMP);

    b.   Contractor Engineering Management Plan (CEMP);

    c.   Materiel System Security Management Plan (MSSMP);

    d.   In-Service Security Management Plan (ISSMP);

    e.   System Safety Program Plan (SSPP); and

    f.   In-service Materiel Safety Plan (IMSP).

4.2   The SSP inter-relates with the following data items, where these data items are required under the Contract:

    a.   System Specification (SS) for the SSoI including, if applicable, the associated Cyber Security Assurance Basis (as a component of this specification);

    b.   System Architecture Description (SAD);

    c.   Software List (SWLIST);

    d.   the security-related data items required under the Contract (other than those identified under clause 4.1);

    e.   the safety-related data items (eg, Hazard Log, Safety Case Report (SCR) and Materiel Safety Assessment (MSA)); and

    f.   Verification and Validation (V&V) data items, such as the V&V Plan (V&VP), Verification Cross Reference Matrix (VCRM), Acceptance Test Plans (ATPs), and Acceptance Test Reports (ATRs).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

> *Note to drafters: Amend the following list of Applicable Documents to suit the requirements of the Contract. Do not include documents that are included within the 'Governing Security Documents'. In relation to ACSC documents, ensure that the latest versions are referenced.*

    Governing Security   (see the Glossary for the definition of this term)
    Documents

NIST SP 800-82	Guide to Operational Technology Security, Revision 3, September 2023
ISA/IEC 62433 series	Security for Industrial Automation and Control Systems
Australian Government Australian Cyber Security Centre (ACSC) Guidance Documents	Strategies to Mitigate Cyber Security Incidents, February 2017
	Strategies to Mitigate Cyber Security Incidents – Mitigation Details, February 2017
	System Security Plan (SSP) Annex Template

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   Subject to clause 6.1.2, the data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   Where a SSP is required for an ICT Security Authorisation, the format and content requirements for the SSP shall comply with any template for a System Security Plan issued by Defence in addition to the content requirements set out in clauses 6.1.4-6.1.7 and clauses 6.2 and 6.3 of this DID.

6.1.3   When the system security program clause in the SOW does not include requirements for an ICT Security Authorisation, the SSP should only address those requirements of this DID that relate to assessing cyber security.

6.1.4   The SSP shall be consistent with and, where applicable, comply with the Applicable Documents identified at clause 5. The SSP shall also accord with the risk management framework documented in the Approved governing plan (eg, SEMP, MSSMP or ISSMP, as applicable.

6.1.5   Where the Approved governing plan identifies that more than one SSP will be developed to address the ToSAs within an SSoI, each SSP shall identify the full scope of ToSAs and the associated SSPs for the SSoI, including the relationships between them (if any).

6.1.6   Subject to clause 6.2.4.1, when the Contract has specified delivery of another data item that contains aspects of the required information, the SSP should summarise these aspects and refer to the other data item.

6.1.7   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content – Part 1

6.2.1   Scope

6.2.1.1   The SSP shall define the scope of the SSP, identifying the SSoI and the associated ToSA(s) being addressed through the plan.

6.2.1.2   The SSP shall identify any assumptions and constraints associated with the information provided in the SSP, including (where applicable) how and when:

a.   the identified assumptions will be validated; and

b.   the identified constraints will be ameliorated.

6.2.2   System and Organisational Stakeholders

6.2.2.1   The SSP shall identify the key stakeholders applicable to the SSoI, including the System Owner, project sponsor, acquirer, user, developer, support agencies, and the relevant authorities for each different type of required Security Authorisation.

6.2.3 General System Overview

6.2.3.1 The SSP shall provide a general description of the SSoI, including its overall mission and capabilities, both functional and non-functional, from a security perspective. This general description shall also identify the external systems to which the SSoI interfaces, including providing a brief description of the purpose of the interactions between the SSoI and each external system.

6.2.3.2 The SSP shall identify and describe the component subsystems of the SSoI, including:

a.   internal network interface diagram(s);

b.   system block diagram(s);

c.   internal system interface block diagram(s); and

d.   system / software architecture diagram(s).

6.2.3.3 The SSP shall identify the ToSAs associated with the SSoI, including in relation to component subsystems of the SSoI and the external systems.

6.2.3.4 The SSP shall list:

a.   all system-wide operating systems and software in use for the SSoI; and

b.   the proposed system-wide security features (eg, cross-domain solutions, firewalls, and procedural controls).

6.2.4 Security Architecture

6.2.4.1 When the Contract has specified the delivery of a System Architecture Description (SAD), the Security Architecture description required by this clause 6.2.4:

a.   shall be consistent with the architectural views defined in the system architecture model underpinning the SAD; and

b.   should be derived as specific views from the SAD, and these views shall be incorporated explicitly into the SSP and not provided by cross-referencing to the SAD.

6.2.4.2 The SSP shall provide a high-level security architecture description of the SSoI, including identifying the interfaces to the external systems. The SSP shall include the following information:

a.   System Operating Environment: Provide a brief (one to three paragraphs) general description of the environment that the SSoI operates within, including the context of that environment on a location basis (eg, when a SSoI element is part of a larger system, such as a platform). Include any environmental or technical factors that raise special security concerns.

b.   System Interconnection and Information Sharing: For each interface to an external system, describe the technical implementation of the data flows between the SSoI and the external system, including where data is stored and transiting to, protocols, and what protection the data is given. For each interconnection between external systems that are owned or operated by different organisations, provide information concerning:

    (i)   the authorisation for the connection to other systems or the sharing of information between those systems; and

    (ii)   the assessed integrity, from a security perspective, of the data and information resident on the external system that will be used by, or shared with, the SSoI.

Note: System interconnection is the direct connection of two or more Digitally Enabled Systems and Equipment (DESE) for the purpose of sharing information resources. System interconnection, if not appropriately protected, may result in a compromise of all connected systems and the data they store, process, or transmit. It is important that system owners, information owners, and management obtain as much information as possible regarding vulnerabilities associated with system interconnections and

information sharing. This is essential to selecting the appropriate controls required to mitigate those vulnerabilities.

c.   System Connectivity to Development or Test Environments: Describe any connectivity to development or test environments and how separation is maintained.

d.   Accreditation Status of External Systems: Provide a table that details the ICT and cyber Security Authorisations of existing external systems, where interconnections are proposed.

e.   Internal Data Flow Description and Protocols: Provide a description of the data flows internal to the SSoI, including their protocols. Include relevant diagrams.

f.   Physical Environment Security: Include details of the physical security aspects relevant to the management and control of ICT/cyber-security risks (eg, with respect to installation or operational deployment), as well as any (known) physical security area ratings, physical security inspections, and physical security Certifications.

g.   Data Security Classification and Categorisation: Detail the classification of the SSoI and the information held/processed by the SSoI, cross-referring to the Security Classification and Categorisation Guide (SCCG), as appropriate. Include details of the mechanisms to report any unauthorised connections or programmable devices (ie, sensors, converters etc.) trying to connect to the SSoI.

h.   User Matrix: Detail the types of roles/users, their access levels, responsibilities, clearances required and who authorises their access to the SSoI.

i.   Security Authorisation Boundaries: Define the boundaries of the SSoI (and subsystems if separate assessment is required at their level) with respect to the boundaries underpinning the Security Authorisations for, as applicable:

(i)   physical security;

(ii)   EMSEC;

(iii)   ICT security; and

(iv)   cyber security.

Note: A system may be made up of a series of subsystems and in some instances all subsystems are included within the assessment boundary but in other instances some of those subsystems may be excluded or assessed separately.

6.3   Specific Content – Part 2

6.3.1   Statement of Applicability / SSP Annex

Note: The SSP Annex Template issued by ACSC will assist with satisfying the ISM-related elements of this clause 6.3.1.

6.3.1.1   The SSP shall include, as an annex to the SSP, a statement of applicability for each ToSA covered by the plan, which identifies:

a.   the version of the ISM, DSPF and any complementary publications (eg, NIST SP 800-82 or ISA-62443 series) agreed by the Commonwealth, which have been used to determine the security controls to implement;

b.   the security controls from the ISM and DSPF that are, and are not, applicable to security for the ToSA(s), including supporting justification and references to supporting evidence (where applicable);

c.   the security controls from the ISM, DSPF or complementary publication(s) that are applicable but are not being implemented or are only being partially implemented (including the rationale behind these decisions);

d.   any additional controls that need to be implemented as an outcome of the risk assessment for the ToSA(s) captured in the associated SRMP;

e.   any exemptions that have been granted, including (if known) the details of when and by whom;

f.   any approvals to operate that have been granted, including (if known) the details of when and by whom; and

g.   through the inclusion of cross-references to the relevant risks in the associated SRMP, which risks have been mitigated by each control.

6.3.2   System Security Plan – Design and Implementation Phases

6.3.2.1   During the design and implementation phases for the SSoI, the SSP shall describe the security controls that are being implemented to enable the required ICT and cyber Security Authorisations to be achieved for the SSoI, including identifying the implications for system design, system operation and system support, including in relation to:

a.   human system integration,

b.   standard operating procedures,

c.   incident management and disaster recovery, and

d.   Cyber Supply Chain management.

6.3.2.2   The SSP shall identify the ISSMP, Security Standard Operating Procedures (SSOPs), and other manuals and procedures that are required to implement the identified security controls.

6.3.2.3   The SSP shall:

a.   identify the eight mitigation strategies from the ACSC Essential Eight Maturity Model and associated ACSC guidance documentation;

b.   identify the assessed maturity level for the SSoI against each of these strategies, including describing the implementation status of each control; and

c.   provide the associated justification for this assessment.

6.3.2.4   The SSP shall describe the plan to Verify that the controls for each ToSA have been properly implemented and are effective, including references to:

a.   industry, regulatory and legislative compliance requirements; and

b.   the applicable V&VP, VCRM and associated data items (eg, ATPs).

6.3.3   System Security Plan – ICT and Cyber Security Authorisation Phases

6.3.3.1   During the ICT and cyber Security Authorisation assessment phases for a SSoI, the SSP shall provide a consolidated reference or summary of the ICT/cyber-security controls, practices and procedures that have been implemented.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ENG-SOL-TSREP-V5.3

2.   TITLE: TRADE STUDY REPORT

3.   DESCRIPTION AND INTENDED USE

3.1   Trade studies are a formal decision-making methodology used to select balanced solutions (eg, with respect to cost, schedule, performance, quality and risk) from available alternatives based on defined criteria. The outcome of a trade study is the identification of a preferred, feasible solution, given a specific set of defined evaluation criteria. The Trade Study Report (TSREP) documents the problem, methodology and outcome associated with each trade study explicitly defined in the Contract.

Note: The TSREP is not required to be used to document trade studies conducted by the Contractor as part of its normal design-and-development activities under the Contract.

3.2   The Contractor uses the TSREP to:

a.   define the specific problem addressed by the trade study; and

b.   detail the analysis, rationale and recommendations associated with the trade study.

3.3   The Commonwealth uses the TSREP to:

a.   understand and assess the Contractor's analysis of the problem;

b.   provide input for Commonwealth decision-making; and

c.   provide a repository for future reference.

4.   INTER-RELATIONSHIPS

4.1   The TSREP is subordinate to the following data items, where these data items are required under the Contract:

a.   Systems Engineering Management Plan (SEMP);

b.   Integrated Support Plan (ISP); and

c.   any plan for the conduct of trade studies required under the Contract.

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   Definition of the Problem

6.2.1.1   The TSREP shall define the problem that is the subject of the trade study.

6.2.2   Evaluation Criteria

6.2.2.1   The TSREP shall define the set of evaluation criteria, by which alternative solutions have been compared and assessed, including any weighting of the criteria. These criteria should

be traceable to requirements, operational scenarios, business case assumptions, business objectives, or other documented sources.

6.2.2.2   The TSREP shall record the rationale for the selection and rejection of the evaluation criteria applied.

6.2.3   Definition of All Considered Solutions

6.2.3.1   The TSREP shall identify each of the possible solution options considered by the trade study.

6.2.3.2   For each of the identified options, the TSREP shall identify its significant characteristics. Where the specific options are described in detail by other documentation, this documentation shall be clearly referenced in the TSREP.

6.2.3.3   The TSREP should define the rationale for the selection of the chosen options from the total available solution space.

6.2.4   Assessment Methodology

6.2.4.1   The TSREP shall define the methodology used in the execution of the trade study, including:

    a.   the assumptions, evidence supporting the assumptions, requirements and constraints;

    b.   any pilots, prototypes, models or simulators used; and

    c.   the trade-off methodology used.

6.2.5   Option Assessment

6.2.5.1   The TSREP shall document the evaluation of each option against the defined criteria. Where the problem is reflected in a documented set of requirements, the compliance of each potential solution against those requirements shall be stated.

6.2.5.2   The TSREP shall document the rationale for the addition of new alternatives or methods and changes to criteria that occurred during the trade-study.

6.2.5.3   The TSREP shall identify the risks associated with the considered alternatives in the context of the required development.

6.2.6   Recommendation

6.2.6.1   The TSREP shall document the recommended option and any proposed further course of action necessary to refine or implement that option.

6.2.6.2   The TSREP shall record both why the recommend option was selected and why other options were rejected.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ENG-SW-SWLIST-V5.3

2.   TITLE: SOFTWARE LIST

3.   DESCRIPTION AND INTENDED USE

3.1   The Software List (SWLIST) identifies and describes each Software product that forms part of the Supplies or would otherwise be developed or acquired under the Contract and includes additional attribute information for each Software product.

3.2   The Contractor uses the SWLIST to:

a.   list the Software products to be developed or acquired under the Contract and those to be supplied to the Commonwealth; and

b.   document key Software characteristics of interest to the Commonwealth.

3.3   The Commonwealth uses the SWLIST to:

a.   achieve early visibility into the criticality, quantity and nature of the Software to be supplied and subsequently supported; and

b.   understand the scope of Software to be delivered to the Commonwealth and Associated Parties, and the rights associated with that Software.

4.   INTER-RELATIONSHIPS

4.1   The SWLIST is subordinate to the following data items, where these data items are required under the Contract:

a.   Systems Engineering Management Plan (SEMP); and

b.   Software Management Plan (SWMP).

4.2   The SWLIST inter-relates with the following data items, where these data items are required under the Contract:

a.   System Architecture Description (SAD);

b.   Mission System Technical Documentation Tree (MSTDT);

c.   Contract Work Breakdown Structure (CWBS); and

d.   Software Support Plan (SWSP).

4.3   The SWLIST inter-relates with the Technical Data and Software Rights (TDSR) Schedule.

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

Nil

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The SWLIST shall be provided in soft copy as a structured data file (eg, one or more databases, spreadsheets or other structured data format) that enables the SWLIST content to be accessed, queried, read, printed and used to generate soft copy tabulated text reports.

6.1.3   Except where the soft copy data file is compatible with a standard Software application defined elsewhere in the Contract, or otherwise agreed in advance and in writing by the Commonwealth Representative, the SWLIST shall be accompanied by any Software and Technical Data required to enable the functions identified in clause 6.1.2.

6.1.4   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   Identity

6.2.1.1   The SWLIST shall identify each Software product or logical aggregation of Software products using a unique identifier.

6.2.1.2   Where the SWLIST is being used to report the content of a software build or increment, the build or increment shall be uniquely identified.

6.2.2   Location in the System Hierarchy

6.2.2.1   The SWLIST shall identify the location of each Software product in the Materiel System hierarchy (eg, processing element, equipment, subsystem and system) using an indentured numbering system that provides traceability from the Software product to the top-level system. The indentured numbering system shall reflect the CWBS element numbers, unless specified otherwise in the Approved SWMP.

6.2.3   Description

6.2.3.1   The SWLIST shall provide a brief description of the function or purpose of each Software product in terms of its contribution to functionality of the Mission System and / or Support System, cross-referring to the SAD where applicable.

6.2.4   Software Criticality

6.2.4.1   The SWLIST shall identify the criticality of each Software product in accordance with the following table:

Criticality	Effect on Materiel System		Effect on Contract	
	Performance	**Support**	**Cost**	**Schedule**
0	Software product is 'safety critical'. Failure may result in loss of life, injury, or significant damage to property or the environment.		Not applicable.	
1	Product is 'mission critical'. Product failure results in mission failure due to:		Delays in schedule result in:	
	Major degradation of operational capability.	Unresponsive support or unsupportable Software hinders system operation.	Significant cost overrun, budget overrun likely or has occurred.	Scheduled date for first System Acceptance is unachievable.
2	Product failure results in degraded performance to a point where mission success is questionable due to:		Delays in schedule result in:	
	Significant reduction of operational capability.	Software support, or work-around, delays or reduces system operation.	Cost overrun with possible budget overrun.	Possible slippage in scheduled date for System Acceptance.
3	Product failure results in degradation of secondary mission due to:		Delays in schedule result in:	
	Minor reduction of operational capability.	Software support, or work-around, delays or reduces secondary capability.	Cost overrun but sufficient remaining budget.	Compressed schedule, but scheduled Acceptance date is realistic and achievable.
4	Product failure results in inconvenience with:		Delays in schedule result in:	
	No reduction in operational capability.	No noticeable delays caused by Software support.	Minor cost increase with negligible impact to budget.	Negligible impact to the achievement of Acceptance.

6.2.5   Software Categories

6.2.5.1   Each Software product shall be categorised by a single category from the following table. Mission System and Support System Software may include both Bespoke Software (as defined in the table) and Commercial Software. Where a Software product is integrated from lower level Software products, which are of a different category, these lower level products need to be separately identified and reported in the SWLIST.

Software Category	Description	Comments
Bespoke Software	Software that is subject to software development or integration activities.	Source Code may be available to the Commonwealth and allow the Commonwealth to modify and maintain the software independently of the original supplier. May integrate one or more subcomponents that are Commercial Items or Free and Open Source Software.
Commercial Software that is not Free and Open Source Software (CNF)	Commercial Software as defined in the Glossary, exclusive of Free and Open Source Software.	Development is not required to meet the requirements of the system being acquired. Unless agreed in relation to a Key Commercial Item, the Commonwealth is unlikely to be able to acquire Source Code and/or the legal rights to modify or re-engineer the software.
Commercial Software that is Free and Open Source Software (FOSS)	Free and Open Source Software, as defined in the Glossary.	Generally available to the public in Source Code and may also include compiled form. Subject to a variety of open source licences. Ongoing support may be provided from an open source community.

6.2.6 Other Software Attributes

6.2.6.1 The SWLIST shall identify whether each of the attributes, in the following table, applies to each Software product (ie, yes or no for each).

Software Attribute	Description	Comments
Software as Firmware (SAF)	Firmware is a combination of a hardware device and computer instructions or computer data that reside as read-only software on the hardware device. The software cannot be readily modified under program control.	SAF has not always been recognised as software but treated as hardware or as a component of a hardware item (eg, software-controlled electronics such as radios and GPS). SAF may not always be identified as a supportable item independent of the hardware item that contains it.
Non Deliverable Software (NDS)	Software that is not required to be delivered to the Commonwealth or any other person under the Contract because the Commonwealth does not need it for operation or support of the system (eg, unit test harnesses not required for support). NDS is generally used in the development and testing of other software or system elements.	NDS may be Bespoke Software or Commercial Software (either CNF or FOSS). NDS may be used to test or exercise other software or hardware as part of that product's development. Consideration should be given to Commonwealth needs for access to identified NDS over the life cycle.

6.2.7 Level

6.2.7.1 The SWLIST shall identify the level of the Software product (ie, item, component or unit) in the system hierarchy. Software items may be designated as 'configuration items' while the Software architectural design process transforms items into 'components' and the Software detailed design process refines components into 'units'.

6.2.8 Language

6.2.8.1 The SWLIST shall identify the programming language used / to be used to develop each Software product.

6.2.9 Software Size Information

6.2.9.1 General

6.2.9.1.1 Software size details in the SWLIST shall be provided in Source Lines of Code (SLOC) (or thousand SLOC (KSLOC)), or an equivalent development-related unit of measure (eg, function points) with the Contractor's recommended methodology for converting to SLOC.

6.2.9.1.2 The SWLIST shall clearly identify whether the Software sizing information provided is an actual value (denoted '(A)') or estimated value (denoted '(E)') (eg, '542,341 SLOC (A)').

6.2.9.1.3 Where Software sizing information is an estimated value, the SWLIST shall include the most recent date at which the estimate was considered valid.

6.2.9.1.4 Except for the Estimated Total Size, other size estimates may be expressed either as an absolute value, using the same units as for the Estimated Total Size, or as a relative value (ie, a percentage).

6.2.9.2 Estimated Total Size

6.2.9.2.1 For each item of Bespoke Software the SWLIST shall identify the estimated or actual total size of all code in accordance with the requirements of clause 6.2.9.1.

6.2.9.3   Reused Unmodified Code Required

6.2.9.3.1   For each item of Bespoke Software, the SWLIST shall identify the estimated or actual size of the code to be reused without modification in accordance with the requirements of clause 6.2.9.1.

6.2.9.4   Estimated Modified Code Required

6.2.9.4.1   For each item of Bespoke Software, the SWLIST shall identify the estimated or actual size of the code to be modified (ie, reused with modification) in accordance with the requirements of clause 6.2.9.1.

6.2.9.5   Estimated New Code Required

6.2.9.5.1   For each item of Bespoke Software, the SWLIST shall identify the estimated or actual size of new code to be developed in accordance with the requirements of clause 6.2.9.1.

6.2.10   Development Standard

6.2.10.1   The SWLIST shall identify the software development standard applied to each extant Software product or that will be applied to Software products during development or modification.

6.2.11   Assurance Standard

6.2.11.1   The SWLIST shall identify the software assurance standard applied to each extant Software product or that will be applied to Software products during development or modification.

6.2.12   Software Assurance Level

6.2.12.1   The SWLIST shall identify the Software assurance level applied to each extant Software product or that will to be applied to Software products during development or modification.

6.2.12.2   The SWLIST shall define the Software assurance levels where these differ from the assurance levels specified for an assurance standard that was identified in response to clause 6.2.11.

6.2.13   Source Code Availability

6.2.13.1   For each item of Bespoke Software, the SWLIST shall indicate the availability of Source Code.

6.2.14   Development Agency

6.2.14.1   The SWLIST shall identify the development agency for each Software product.

6.2.15   Support Agency

6.2.15.1   The SWLIST shall identify the support agency for each Software product.

6.2.16   Target Platform

6.2.16.1   The SWLIST shall identify the target (computing) platform for each Software product.

6.2.17   Target Environment

6.2.17.1   The SWLIST shall identify the target environment (eg, operating system) for each Software product.

6.2.18   Software Support Environment

6.2.18.1   The SWLIST shall describe the support environment needed for each Bespoke Software product, including any development and/or test environment(s) (eg, compilers, editors, debuggers, computer aided software engineering tools, and special test equipment (eg, simulators and stimulators)).

6.2.19   Delivery Information

6.2.19.1   The SWLIST shall include delivery information, including for each delivery:

   a.   if the Software product is delivered separately or as part of a higher level system / hardware component;

   b.   if the Software product is delivered separately (which may include maintenance / version updates), the method of delivery (eg, online, media);

c.   the delivery location, recipient, delivery date and milestone to which it relates; and

d.   installation, configuration, adaptation and compatibility information, as applicable.

6.2.20   Software Rights

6.2.20.1   If restrictions (including Intellectual Property rights, Export Approvals or other limitations) apply to Bespoke Software or Commercial Software related to a Key Commercial Item, the SWLIST shall include cross-reference to such provisions as described in the TDSR Schedule for licensing or delivery restrictions, or directly to the applicable agreement (eg, an applicable Technical Assistance Agreement).

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ENG-SW-SWMP-V5.3

2.   TITLE: SOFTWARE MANAGEMENT PLAN

3.   DESCRIPTION AND INTENDED USE

3.1   The Software Management Plan (SWMP) documents the Contractor's plans for the management and development of Software. The SWMP describes the application of the relevant processes described in AS/NZS ISO/IEC/IEEE 12207:2019, *Systems and Software Engineering - Software life cycle processes*, as the Contractor intends to apply them to the activities of the Contract.

3.2   The Contractor uses the SWMP to:

a.   document the approach, plans, and procedures for managing Software-related activities under the Contract; and

b.   monitor the progress of Software-related activities.

3.3   For Contractors acquiring and/or supplying Software under the Contract, the SWMP is expected to describe the approach, plans and procedures to be applied to the management of the Software being acquired and/or supplied. This would typically include the monitoring and review of Subcontractors developing Software, the Configuration Management of acquired Software, and the integration and Verification of this Software with other elements being supplied under the Contract.

3.4   For Contractors developing Software, this plan is expected to include the approach, plans and procedures for Software development, in addition to those applied to the acquisition and/or supply.

3.5   The Commonwealth uses the SWMP to gain insight into the approach, plans and procedures to be employed by the Contractor in the execution of Software-related activities.

4.   INTER-RELATIONSHIPS

4.1   The SWMP is subordinate to the Systems Engineering Management Plan (SEMP).

4.2   The SWMP inter-relates with the following data items, where these data items are required under the Contract:

a.   Software List (SWLIST);

b.   Contract Master Schedule (CMS); and

c.   Software Support Plan (SWSP).

4.3   The SWMP inter-relates with the Technical Data and Software Rights (TDSR) Schedule.

5.   APPLICABLE DOCUMENTS

5.1   The following document forms a part of this DID to the extent specified herein:

DI-IPSC-81427B	Software Development Plan Data Item Description
AS/NZS ISO/IEC/IEE 12207:2019	Systems and Software Engineering - Software life cycle processes

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   When the Contract has specified delivery of another data item that contains aspects of the required information, the data item shall summarise these aspects and refer to the other data item.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   **Specific Content**

6.2.1   **General**

6.2.1.1 The SWMP shall comply with the content requirements of DI-IPSC-81427B, with the exceptions contained in Table 1 below.

6.2.1.2 The SWMP shall, when addressing the content requirements of DI-IPSC-81427B, define Software life cycle processes and Software specific processes that are consistent with AS/NZS ISO/IEC/IEEE 12207:2019, and tailored to the scope of the Contract.

Table 1 – Tailoring to be applied to DI-IPSC-81427B

Affected Paragraph	Tailoring to be Applied
All	Replace all occurrences of 'Software development plan' with 'Software Management Plan'.
All	Replace all occurrences of 'SDP' with 'SWMP'.
All	Delete all occurrences of 'It shall cover all contractual clauses concerning this topic.'
3.6a Software development process	Replace with: This paragraph shall describe the selected Software development life cycle(s) for each component or group of related components together with the rationale for their use within the context of the Contract. The description should justify and link the selected life cycle models to Contract risks, major milestones, work products, deliverables and development phases to demonstrate its appropriateness.
3.7c1 Incorporating reusable Software products	Add: Implications for supporting the Software shall be specifically addressed for each item affected and include an assessment of vendor viability, level of support available, alternate sources of support, ownership of Intellectual Property licensing arrangements (including costs and, by reference to the TDSR Schedule, restrictions), dependencies such as operating system and/or hardware compatibility and constraints.
3.7d1 Safety Assurance	Add: It shall describe the integration of Software safety as part of the system safety program. It shall include the tailoring and use of selected Software assurance standards and guidelines and associated data deliverables.
3.7e (shown as a 2nd d1 in the DI-IPSC-81427B) Assurance of other critical requirements	Add: It shall describe any mission critical Software and the steps either taken or planned to ensure failure of this Software will not compromise the system's mission.
3.7f Computer hardware resource utilisation	Add: It shall describe the interpretation of any resource utilisation requirements and how the satisfaction of these requirements are to be verified.
3.7h Access for acquirer review	Replace with: This paragraph shall describe the approach to be followed for providing the Commonwealth Representative with access to Contractor and Subcontractor facilities for review of work products, activities and data including engineering and measurement data. Access should include at least physical access to facilities and preferably include electronic access to data (eg measurement data) and work products (eg, design information).

Affected Paragraph	Tailoring to be Applied
3.8b1 Software engineering environment	Add: It shall include details of the Software engineering environment including computing resources (number, type, configuration, etc.), and the associated performance requirements of the environment (eg, required compile and link times). This paragraph shall address the certification implications of the environment.
3.8b2 Software test environment	Add: It shall include details of the Software test environment including computing resources (number, type, configuration), special test equipment and the associated performance requirements of the environment (eg, simulator fidelity, instrumentation, recording, etc.). This paragraph shall address the certification implications of the environment.
3.8b5 Non-deliverable Software	Add: It shall identify any non-deliverable Software and describe how this Software will be treated differently from deliverable Software. It shall address specifically the application and tailoring of the standards identified for Software development to non-deliverable Software. This paragraph shall address the certification implications and use of non-deliverable Software.
3.8d1 System-wide design decisions	Replace with: This paragraph shall include details of how system design decisions affecting or affected by Software are to be made and recorded. It should address how such decisions and the rationale for making them will be preserved and applied during through life support of the system.
3.8e Software requirements analysis	Add: It shall describe how Software requirements will be identified and allocated to Software components, how Software requirements will be reviewed to ensure a common understanding with relevant stakeholders and how Software requirements will be managed and controlled.
3.8f1 CSCI-wide design decisions	Add: It shall detail the criteria used to define and select CSCIs, including the rationale for each of the selection criteria. It shall include design decisions regarding the partitioning of the Software and the consideration given to enhancement and modification during through life support of the Software.
3.8o7 Transition to the designated support site	Add: This paragraph shall detail the management strategy and plans for the transition of the Software development capability to the support agency and address any special considerations (eg, preservation of safety certification). It shall identify all items that have any limited or restricted warranty, data rights or licensing agreements, including any other limitation on the delivery or support of the item (by reference to the TDSR Schedule, where applicable). It shall describe all provisions, which ensure the Commonwealth's rights concerning the delivered Software and associated data, and describe the plans for transferring any required licenses, warranties and data rights to the Commonwealth or its nominated representatives. It shall identify and describe those items of the development Software engineering environment that will be transitioned into the Software support environment including those items used for integration and test of the Software and any special test equipment. Where a Transition Plan, covering transition planning for Software as indicated above, is separately available to the Commonwealth Representative, this section may reference that source.
3.8.u1 Risk management	Add: This paragraph shall detail the techniques used for identifying Software related risks and mitigation strategies. Where this information is available to the Commonwealth Representative in the Risk Register or equivalent then this section should provide a reference to the information.

Affected Paragraph	Tailoring to be Applied
3.8u2 Software management indicators	Add: This paragraph shall detail the use of measurement as a management tool. It should identify how the Contractor intends using measurement to manage the development and acquisition of Software for the Contract. Where this information is available to the Commonwealth Representative elsewhere this section should reference the relevant information and provide a summary of the measures used for Software management.
3.8u.4 Subcontractor management	Add: This paragraph shall detail the Contractor's plans for managing the Software engineering activities performed by Subcontractors. It shall identify and describe the scope of the Software activities to be undertaken by the Contractor and each of its Subcontractors performing Software engineering activities. It shall describe the Contractor's plans for review and approval of Subcontractor plan and processes. It shall describe the Contractor's plans for monitoring the progress of Subcontractor activities and how significant deviations from Subcontractor plans will be identified and addressed.
3.8u6 Coordination with associate developers	Add: This paragraph shall describe the plans for coordination of Software engineering efforts with associated developers. Such coordination may include interface definition and control, the use of integrated product teams, as well as the support to be provided during integration and verification activities.
3.8u7 Improvement of project processes	Add: This paragraph shall provide details of the Contractor's and associated organisations Software engineering process improvement activities specific to this Contract. Where this information is available to the Commonwealth Representative in a Process Improvement Plan or equivalent then this section should provide a reference to the information.
3.7u9 Software rights management	Add new requirement 3.7u9 Software rights management: This paragraph shall document the approach, plans and procedures for managing Software rights (including Intellectual Property rights) for the Software acquired, supplied or developed under the Contract. This paragraph shall cross-reference the Technical Data and Software Rights Schedule for details of rights and limitations.
3.8v Schedules and activity network	Add: This paragraph shall present and describe a stand-alone summary of the Software schedule and include a clear mapping of the life cycle development phases and major milestones. This paragraph shall include the rationale for the durations given in the schedule and include the basis of estimate, estimating assumptions, and the selection of coordination points and linkages to the Contract Master Schedule.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ENG-TRACE-RTM-V5.3

2.   TITLE: REQUIREMENTS TRACEABILITY MATRIX

3.   DESCRIPTION AND INTENDED USE

3.1   The Requirements Traceability Matrix (RTM) describes the Contractor's traceability along design rationale for modifications between specifications and related documents that define the system.

3.2   The Contractor uses the RTM to provide bi-directional traceability between requirements specifications at different levels within the system hierarchy.

3.3   The Commonwealth uses the RTM to evaluate the completeness of the Contractor's design solution and to assess the impact of any changes.

4.   INTER-RELATIONSHIPS

4.1   The RTM is subordinate to the following data items, where these data items are required under the Contract:

a.   Systems Engineering Management Plan (SEMP); and

b.   Integrated Support Plan (ISP).

4.2   The RTM inter-relates with the following data items, where these data items are required under the Contract:

a.   System Specification (SS) for each Mission System;

b.   Support System Specification (SSSPEC); and

c.   Verification Cross Reference Matrix (VCRM).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   This DID may be satisfied by an electronic database in a format agreed with the Commonwealth Representative.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   General

6.2.1.1   The RTM shall show the traceability of requirements from the Contract and other source documents to the System Specification and lower levels of the specification hierarchy.

6.2.1.2   The RTM shall be a Contract-wide repository and include requirements from both Contractor and Subcontractors.

Note: The RTM may be related to the VCRM (ie, either the RTM uses the same database as the VCRM or they are produced from a common data source).

6.2.1.3   The RTM shall clearly explain the format and terminology used for the data of the RTM.

6.2.1.4   The RTM shall identify for each requirement:

 a. a unique and unmodifiable identifier for the requirement;

 b. the architectural element (CI or interface) to which the requirement belongs;

 c. the document and paragraph number of the requirement;

 d. the derivation, or reference to the design record that records the derivation, for the requirement from its parent where the requirement has a parent within the database; and

 e. other attributes as identified by the design process.

6.2.1.5   The RTM shall identify parent-child and child-parent links that provide the rationale and unambiguous traceability for all requirements.

6.2.1.6   The RTM shall show the parent-child and child-parent traceability through multiple levels of the design hierarchy to assess the impact of potential specification changes.

6.2.1.7   Where the RTM is provided in electronic format it shall be accompanied with user documentation showing the operation, the data relationships and interpretation of all data fields.

DATA ITEM DESCRIPTION

1.	**DID NUMBER:**	**DID-ILS-DEF-SSSPEC-V5.3**

2.	**TITLE:**	**SUPPORT SYSTEM SPECIFICATION**

3.   DESCRIPTION AND INTENDED USE

3.1   The Support System Specification (SSSPEC) defines the validated set of requirements for the Support System.

3.2   The Contractor and the Commonwealth use the SSSPEC as the basis for common understanding of the requirements for the Support System.

4.   INTER-RELATIONSHIPS

4.1   The SSSPEC is developed in accordance with the Approved Integrated Support Plan (ISP).

4.2   The SSSPEC inter-relates with the following data items, where these data items are required under the Contract:

>   a.   System Specification (SS) for each Mission System, as defined under the Contract;
>
>   b.   Requirements Traceability Matrix (RTM); and
>
>   c.   Verification Cross Reference Matrix (VCRM).

4.3   The SSSPEC also inter-relates with any support-related Australian Industry Activities (AIAs), particularly any support-related Defence-Required Australian Industry Capabilities (DRAICs), identified in Attachment F.

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

>   Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   Section 1 – General

6.2.1.1   Identification. This paragraph shall contain a full identification of the Materiel System to which this document applies, including, as applicable, identification number(s), title(s), abbreviation(s), version number(s), and release number(s).

6.2.1.2   System overview. This paragraph shall briefly state the purpose of the Support System. It shall describe the general nature of the Support System; summarise the history of the Mission System development, operation, and maintenance; summarise the history of the Support System development; identify the project sponsor, acquirer, user, developer, and support agencies; and identify current and planned operating sites.

6.2.1.3   Document overview. This paragraph shall summarise the purpose and contents of this document and describe any security or privacy considerations associated with its use.

6.2.2   Section 2 – Applicable Documents

6.2.2.1   This section shall list the number, title, revision, and date of all documents referenced in the specification. The list of Applicable Documents shall be preceded by the following clause to ensure that the scope of application of the referenced documents is clear:

The following documents form a part of the SSSPEC to the extent specified herein:

6.2.2.2   In order to avoid confusion in the possible conflict between the requirements of the specification and the documents referenced therein, the following statement should also be included:

> **Order of precedence.** In the event of a conflict between the text of this specification and the references cited herein, the text of this specification takes precedence. Nothing in this specification, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

6.2.3   Section 3 – Requirements

6.2.3.1   General

6.2.3.1.1   This section shall be divided into the following paragraphs (ie, 3.1 – 3.19) to specify the system requirements, that is, those characteristics of the Support System that are conditions for its Acceptance.

6.2.3.1.2   The degree of detail to be provided shall be guided by the following rule: include those characteristics of the Support System that are conditions for Acceptance; defer to design descriptions those characteristics that the acquirer is willing to leave up to the developer.

6.2.3.1.3   If there are no requirements in a given paragraph in the specification, the paragraph shall so state. If a given requirement fits into more than one paragraph, it may be stated once and referenced from the other paragraphs.

6.2.3.1.4   Each requirement shall be stated in such a way that an objective verification method can be defined for it.

6.2.3.1.5   Each requirement shall identify one or more verification methods to be used to determine conformance with the SSSPEC (in the VCRM).

6.2.3.1.6   The SSSPEC shall incorporate the requirements and constraints that apply to the Support System (eg, performance, design, interoperability, reliability, support-related AIAs, and user personnel skill levels). This requirements section shall be written so that compliance with all requirements will ensure the suitability of the Support System for its intended purpose, and non-compliance with any requirement will indicate unsuitability for the intended purpose. Only requirements that are necessary, measurable, achievable, and verifiable shall be included.

6.2.3.1.7   Each requirement paragraph (and subparagraphs, where applicable) shall address only one requirement topic or area. Requirements shall be worded to provide a definitive and objective basis for acceptance or rejection.

6.2.3.1.8   Where applicable, the SSSPEC may include constraints on the solution that identify components of the solution that that are *not* permitted or *not* acceptable.

6.2.3.1.9   Notes and diagrams may be included in the SSSPEC to help to provide context for requirements or SSSPEC sections. Where used, diagrams should be incorporated near to the relevant section of text. Notes should be distinct from requirements and, therefore, should not be identified with the same unique identifiers as the requirements. Notes may be sequentially numbered.

6.2.3.2   3.1 – Missions

6.2.3.2.1   This paragraph shall describe the missions of the Mission System to the extent that such missions affect design requirements for the Support System or relevant subsets of the Support System (eg, deployed Support System Components). This description shall include operational information such as tactics, Mission System roles, Mission System deployment, operating locations, and facilities that impact upon the Support System requirements. If this information is classified, it may be contained in a separate document and referenced in this paragraph.

6.2.3.3   3.2 – System Boundaries and Context

6.2.3.3.1   This paragraph shall provide a context diagram for the Support System that uniquely identifies each interface so that the interface can be usefully referenced in the requirements. The details of these interfaces are defined in 3.19 – System Interface

Requirements. Examples of specific Support System interfaces that shall be addressed by this paragraph include:

a.   interfaces between the Support System and the Mission System;

b.   command, control, and communications interfaces, including those interfaces both within and between the Commonwealth and support contractors, including, where applicable, the Contractor (Support) and Subcontractors (Support);

c.   maintenance-pipeline and supply-chain interfaces, including those interfaces between the Commonwealth and support contractors, including potential support contractors and, where applicable, the Contractor (Support) and Subcontractors (Support);

d.   engineering, design-management and configuration-management interfaces, including those interfaces between the Commonwealth and support contractors, including, where applicable, the Contractor (Support) and Subcontractors (Support);

e.   organisational, process, and information-system interfaces between the Support System Constituent Capabilities;

f.   interfaces between support-related DRAICs and other elements of the Support System; and

g.   data and information flows between the Commonwealth and support contractors, including, where applicable, the Contractor (Support) and Subcontractors (Support).

6.2.3.4   3.3 – Required States and Modes

6.2.3.4.1   If either the Mission System or the Support System is required to operate in more than one state or mode having requirements distinct from other states or modes, this paragraph shall identify and define each state and mode. Mission System states and modes need only be included to the extent that these states and modes have implications for the Support System. Examples of states and modes include: idle, ready, active, post-use analysis, training, degraded, emergency, backup, deployed, contingency, and peacetime. The distinction between states and modes is arbitrary. A system may be described in terms of states only, modes only, states within modes, modes within states, or any other scheme that is useful.

6.2.3.4.2   Each state or mode definition shall support the assignment and definition of functions in the SSSPEC. These definitions should be used to identify the states and modes to be supported by the Support System or its relevant subsets. A table or other method may be used to show the correlation of states and/or modes to requirements or groups of requirements either directly in this paragraph or in an annex referenced from this paragraph. Alternatively, each requirement may be directly annotated with the applicable state / mode information.

6.2.3.4.3   Only states and modes that support the definition of requirements in the SSSPEC shall be defined. Where no states or modes are required, this paragraph shall so state, without the need to create artificial distinctions.

6.2.3.4.4   This paragraph shall define the possible transitions between states and modes in terms of the conditions causing the change in state or mode, and any actions required to move the Support System or relevant subset into the next state or mode. Applicable notation, such as state transition diagrams or similar, should be used to show the relationships between associated states and modes, transitions, and actions.

6.2.3.4.5   This paragraph shall state which states and modes may be concurrent and which are mutually exclusive.

6.2.3.5   3.4 – Support System Capability Requirements

6.2.3.5.1   This paragraph shall define the capabilities of the Support System. The paragraph shall be divided into subparagraphs to itemise the requirements associated with each of the capabilities. A 'capability' is defined as a group of related requirements. The word 'capability' may be replaced with 'function', 'subject', 'object', or other term useful for presenting the requirements.

6.2.3.5.2 <u>(System Capability)</u>. Each subparagraph shall identify a required capability for the Support System and shall itemise the system requirements associated with the capability in measurable terms. The requirements shall specify the required behaviour of the Support System and shall include applicable parameters, such as response times, throughput times, other timing constraints, sequencing, accuracy, capacities (how much/how many), priorities, continuous operation requirements, and allowable deviations based on operating conditions. Where applicable, the requirements shall also address required behaviour under unexpected, unallowed, or 'out of bounds' conditions, including error handling, and any provisions to be incorporated into the Support System to provide continuity of operations in the event of emergencies.

6.2.3.5.3 Support capabilities should be addressed in functional terms to align with the Support System Constituent Capabilities (ie, Perform Operating Support, Perform Engineering, Perform Maintenance, Perform Supply, and Perform Training). The support capabilities shall include the support functions and associated performance requirements for the Support System and relevant subsets (eg, specific Support System Components). Included as part of these support capabilities shall be such aspects as support-related DRAICs, calibration requirements, software support, and data-management requirements, as applicable to the specific Support System.

6.2.3.6   3.5 – Availability

6.2.3.6.1 This paragraph shall specify the applicable availability requirements to define the extent to which the Support System or relevant subsets are able to perform a specified mission or function, when the mission or function is called for at an unknown (random) point in time. If quantitative requirements for both reliability and maintainability are specified, availability requirements may not be applicable, depending upon such aspects as duty cycle(s) and the specific availability, reliability and maintainability measures chosen. If not addressed elsewhere, this paragraph shall also address the required performance of the Support System to enable the availability requirements of the Mission System and of the specified subsets of the Support System to be met.

6.2.3.7   3.6 – Reliability

6.2.3.7.1 This paragraph shall specify the applicable reliability requirements numerically (with confidence levels, if appropriate) for specified subsets of the Support System under the applicable support environments (eg, for those Support System Components that are critical to the Support System achieving its performance requirements). Initially, reliability may be stated as a goal along with a lower minimum acceptable requirement.

6.2.3.8   3.7 – Maintainability

6.2.3.8.1 This paragraph shall specify the applicable maintainability requirements numerically (in such terms as Mean-Time-To-Repair and Maximum-Time-To-Repair or maintenance-man-hours-per-flight or maintenance-man-hours-per-operating hour) for specified subsets of the Support System under the applicable support environments (eg, for those Support System Components that are critical for the Support System achieving its performance requirements). Initially, maintainability for Support System Components may be stated as a goal along with a higher maximum acceptable requirement. If not addressed elsewhere, this paragraph shall also address the required performance of the Support System to enable the maintainability requirements of the Mission System and the specified subsets of the Support System to be met.

6.2.3.9   3.8 – Deployability

6.2.3.9.1 This paragraph shall specify the applicable deployability requirements for the relevant subsets of the Support System (eg, Support System Components) that need to be deployed, with reference to the Mission System deployability requirements, where necessary, to provide context. For example, it should address timing requirements for preparation, set up and pull-down of deployed support capabilities under the applicable environmental conditions; packaging requirements; constraints on deployment footprint; and requirements associated with the support arrangements when deployed.

6.2.3.10   3.9 – Transportability

6.2.3.10.1   This paragraph shall specify the applicable requirements for transportability of relevant subsets of the Support System (eg, Spares and Support System Components) to permit employment and logistic support. For example, it might specify that the equipment be designed / selected so that, with its packing for transport, each package would be no greater than _____ (volume units) and no more than _____ (length units) high, _____ (length units) wide, and _____ (length units) deep. Where the Mission System needs to be transported, it shall identify the Support System requirements to enable the Mission System transportation requirements to be met. It shall also identify all significant components of the Mission System and the Support System that need to be transported, but due to operational characteristics, will be unsuitable for normal transportation methods (eg, oversize, hazardous, or delicate items).

6.2.3.11   3.10 – Environmental Conditions

6.2.3.11.1   This paragraph shall specify the applicable environments that each relevant subset of the Support System is expected to experience in shipment, storage, maintenance, and use. Where applicable, it shall specify whether the relevant subsets will be required to survive, withstand, or be protected against, specified environmental conditions. Subparagraphs shall be included as necessary to cover environmental conditions such as climate, shock, vibration, noise, electromagnetic conditions, noxious gases, chemical agents, biological agents, and nuclear weapons effects.

6.2.3.12   3.11 – Electromagnetic Radiation

6.2.3.12.1   This paragraph shall specify the applicable requirements pertaining to electromagnetic radiation, including infra-red (eg, IR signature), for each relevant subset of the Support System in terms of performance, design (including grounding requirements), and interface considerations.

6.2.3.13   3.12 – Architecture, Growth and Expansion

6.2.3.13.1   This paragraph shall specify the applicable architectural and other requirements to accommodate the need for flexibility, growth, and expansion for relevant subsets of the Support System to support anticipated areas of growth or changes in technology, threat, or mission. If necessary, the need for specific Support System Components to have spare capacity (eg, memory and timing) to support growth and expansion shall also be identified.

6.2.3.13.2   This paragraph shall also specify the applicable requirements for the Support System to grow and expand as the number of Materiel System elements requiring support increases as the Contract progresses, including growth and expansion requirements associated with additional Mission Systems and equipment being delivered under the Contract.

6.2.3.14   3.13 – Safety

6.2.3.14.1   This paragraph shall specify the applicable requirements for the Support System to preclude or limit hazards to personnel and equipment. To the extent practicable, it shall cite established and recognized standards. It shall identify those safety characteristics unique to the Support System, which constrain the design due to hazards in assembly, disassembly, test, transport, storage, operation, maintenance or disposal when they are not addressed by standard industrial or service practices. It shall address 'fail-safe' and emergency operating restrictions, when applicable, as well as any procedural requirements pertaining to safety. Work Health and Safety considerations shall also be addressed, including the need for design registration of Support System Components that are classified as 'registerable plant'.

6.2.3.14.2   This paragraph shall also specify the applicable health and safety criteria, including criteria pertaining to physical, mechanical, biological and explosive effects. These criteria shall include consideration of the toxicological effect of Hazardous Chemicals, waste and by-products; ionising and non-ionising radiation; software provisions to prevent inadvertent actions or non-actions; gas detection and warning devices; grounding of electrical systems; decontamination; explosion proofing; and mishap-mitigating factors such as crash worthiness, escape systems, and fire suppression systems.

6.2.3.15   3.14 – Environmental Impact Requirements

6.2.3.15.1   This paragraph shall specify the applicable requirements to preclude or limit hazards to the physical environment, including the use of Hazardous Chemicals, Ozone Depleting Substances and Synthetic Greenhouse Gases, and management of hazardous waste and environmental pollutants in the physical design of the Support System and during its employment. This paragraph may also specify requirements or preferences for energy / fuel efficiency, where different to the requirements for deployability.

6.2.3.15.2   This paragraph shall also specify requirements for recycled, recovered, or preference for environmentally-sustainable materials to be used, provided that the material meets the operational and support requirements.

6.2.3.16   3.15 – Useability and Human Factors

6.2.3.16.1   This paragraph shall specify the applicable useability and human-factors requirements for the relevant subsets of the Support System, including any special or unique requirements (eg, constraints on allocation of functions to personnel, interactions of communications, and interactions of personnel with equipment). Included shall be those specified areas, stations, or equipments that require concentrated human-engineering attention due to the sensitivity of the operation or criticality of the task, particularly those areas where the effects of human error would be particularly serious.   These requirements shall include, as applicable, considerations for:

   a.   anthropometric factors;

   b.   human sensory and information-processing capabilities and limitations;

   c.   foreseeable human errors under both normal and extreme conditions (especially for input, display, control, maintenance and management of critical information and systems); and

   d.   physiological factors for the operational and support environments.

6.2.3.17   3.16 – Security and Privacy

6.2.3.17.1   This paragraph shall specify the applicable security / privacy requirements that are basic to the design with respect to the operational and support environments for both the Mission System and relevant subsets of the Support System, including in relation to physical security, Emanation Security (EMSEC), Information and Communications Technology (ICT) security, and cyber security. Mission System security details need only be included to the extent that these details have implications for the relevant subsets of the Support System. Included shall be requirements associated with shipment, storage, maintenance, use, and disposal.

6.2.3.17.2   As applicable, these requirements shall address:

   a.   the security and / or privacy environment in which the relevant subsets of the Support System will be employed (for both operations and support);

   b.   any EMSEC/TEMPEST considerations;

   c.   the classification of information to be handled by relevant subsets of the Support System;

   d.   the security threats relevant to the operational and support environments;

   e.   the type and degree of security or privacy to be provided;

   f.   the security / privacy risks the subsets are required to withstand;

   g.   the security / privacy policy that is to be met;

   h.   the security / privacy accountability the subsets are to provide; and

   i.   the criteria to be met for security / privacy Certification, Accreditation and/or declarations of Cyberworthiness.

6.2.3.18   3.17 – Adaptation Requirements

6.2.3.18.1   This paragraph shall specify the applicable requirements for adaptation for relevant subsets of the Support System. If not addressed elsewhere, this paragraph shall also include the

Support System requirements for necessary reconfiguration on changes of Mission System role.

6.2.3.18.2 This paragraph shall specify the applicable requirements concerning installation-dependent data that the Support System is required to provide to the Mission System or to relevant subsets of the Support System (such as site-dependent latitude and longitude or mapping, charting and geodesy support) and operational and support parameters that the Support System is required to use that may vary according to operational and support needs (such as peacetime versus wartime support requirements).

6.2.3.19   3.18 – Design and Implementation Constraints

6.2.3.19.1 This paragraph shall specify the applicable requirements that constrain the design and implementation of relevant subsets of the Support System. This paragraph may be divided into subparagraphs to itemise the constraints associated with each of the Support System Constituent Capabilities. Specific examples of constraints that shall be addressed include constraints imposed on the design of relevant subsets of the Support System by:

a. use of nameplates, design registration marks and compliance plates, part markings, serial and lot number marking, and other identifying markings;

b. use of special markings (eg, for item unique identification in accordance with an applicable standard, as listed in DEFLOGMAN Part 2, Volume 5) for function or identification coding and the use of stamped or imprinted information (eg, standard alloy designators or scannable bar codes) on the system;

c. personnel factors, such as:

    (i) limitations on the availability of operator, maintenance, and support personnel; and

    (ii) the classifications, skill levels, and duty cycles of personnel involved in the operation, maintenance, and support of the Mission System and relevant subsets of the Support System;

d. requirements for standardisation and interoperability, including the criteria for determining when standardisation and interoperability should be pursued;

e. maintenance factors, such as levels of maintenance, maintenance and repair cycles, repair versus replacement criteria, and existing maintenance-related information-management systems;

f. supply factors, such as supply-chain constraints, supply chain security, and existing supply-related information-management systems;

g. transportation factors, such as modes, type, quantity to be transported, destinations, transportation times, etc;

h. existing facilities and facility equipment;

i. training factors, such as restrictions on the type of training to be used, length of training time, and training locations;

j. the remaining useful life of Support System Components after delivery to the Commonwealth;

k. power availability and limitations at each of the operating locations, including when the Mission System is deployed;

l. the availability of S&TE and Spares at each of the operating locations, including when the Mission System is deployed;

m. the use of Government Furnished Material (GFM);

n. the use of standard or military components;

o. the use of a particular design or implementation standards;

p. the use of particular data or Technical Data standards; and

q. other elements of the existing Commonwealth, Contractor, or Subcontractor support environments.

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6.2.3.20   3.19 – System Interface Requirements

6.2.3.20.1   This paragraph shall define the applicable interface requirements associated with each of the interfaces for the Support System defined in paragraph 3.2 – System Boundaries and Context.

6.2.3.20.2   The system response to any interface events should be addressed under paragraph 3.4 – Support System Capability Requirements, rather than in this paragraph.

6.2.3.20.3   Where the SSSPEC needs to elaborate on an internal interface as part of a constraint on the design of the Support System, it should also be included here.

6.2.3.20.4   The definition of each interface requirement shall include:

a.   the designation of the interfacing entities (systems, configuration items, users, etc.) by name, number, version, and documentation references;

b.   a brief description of each interfacing entity (one or more interface diagrams may be provided to depict each interface);

c.   the identification of existing items that impose interface requirements on interfacing entities; and

d.   the identification of those items being developed or modified and, therefore, have interface requirements imposed on them.

6.2.3.20.5   Applicable documentation, such as an interface control document, shall be referenced for each interface as appropriate.

6.2.3.20.6   Where the Support System developer is to define the detail of the interface, this paragraph shall so state, and provide relevant requirements relating to the function of the interface and any constraints on its implementation.

6.2.3.20.7   Where the Support System developer must conform to an existing interface, all necessary details of the interface to progress the development should be contained or referenced within this paragraph.

6.2.3.20.8   Where the Support System developer must conform to an interface which is still in development, but will mature in a relevant timeframe, this paragraph should so state. The relevant milestone at which the interface is expected to be defined should be included as a note against the applicable interface requirements.

6.2.3.20.9   Interface requirements shall include the following, as applicable, presented in any order suited to the requirements:

a.   priority that the Support System must assign the interface;

b.   physical location;

c.   physical medium;

d.   communication medium and communication protocols;

e.   type of interface (such as real-time data transfer, storage-and-retrieval of data, etc);

f.   required data that the Support System, as applicable, must provide, store, send, access, receive, etc;

g.   capacity constraints of the interface (such as physical space, bandwidth, flow rate, etc);

h.   security and privacy considerations;

i.   sources (setting/sending entities) and recipients (using/receiving entities);

j.   other required characteristics, such as physical compatibility of the interfacing entities (dimensions, tolerances, loads, plug compatibility, etc.), voltages, etc; and

k.   the procedural and mechanical aspects of the interface.

6.2.4   Section 4 – Precedence and Criticality of Requirements

6.2.4.1   Where applicable, this section shall specify the order of precedence, criticality, or assigned weights that indicate the relative importance of the requirements in the SSSPEC.

Examples include identifying those requirements deemed critical to safety, to security, or to privacy for purposes of singling them out for special treatment. If all requirements have equal weight, this paragraph shall so state. The precedence, criticality, or assigned weight should be directly annotated against each requirement in Section 3, and this section should indicate how these factors are to be interpreted.

6.2.5   Section 5 – Verification

6.2.5.1   Verification methods to determine that the Support System to be offered for Acceptance conforms to the SSSPEC shall be specified in the VCRM developed and delivered pursuant to the Verification and Validation clause of the Statement Of Work (SOW).

6.2.5.2   Section 6 – Requirements Traceability

6.2.5.2.1   Requirements traceability shall be provided in the Requirements Traceability Matrix (RTM) developed and delivered pursuant to the Systems Engineering clause of the SOW. In addition to the traceability requirements specified in that clause of the SOW, traceability shall also be provided from each requirement of the SSSPEC to the SOW and to the Contract (Support) (if one exists), with rationale for any modifications.

6.2.5.3   Section 7 – Notes

6.2.5.3.1   This section shall contain any general information that aids in understanding this document (eg, background information, glossary, and rationale). This section shall contain an alphabetical listing of all acronyms, abbreviations, and their meanings as used in this document and a list of any terms and definitions needed to understand this document.

DATA ITEM DESCRIPTION

1.   **DID NUMBER: DID-ILS-DEF-TRS-V5.3**

2.   **TITLE: TRAINING REQUIREMENTS SPECIFICATION**

3.   **DESCRIPTION AND INTENDED USE**

3.1   A Training Requirements Specification (TRS) defines the requirements for a Training solution, to be implemented so that trained Personnel can perform a job relating to the operation or support of the Materiel System. In relation to the Systems Approach to Defence Learning (SADL) the TRS is SADL product AP9, and is prepared for a set of related performance needs and performance gaps identified for a particular job, where a 'job' represents a set of duties or related tasks (eg, to operate a piece of equipment or a software package). The TRS specifies the skills, knowledge, attitudes and behaviours to be attained, and provides a basis for evaluating the Training and assessment program, Training Equipment and Training Materials delivered under the Contract.

3.2   The Contractor uses the TRS:

a.   to document, as a result its analyses, the learning and assessment requirements to be addressed through a Training solution; and

b.   as the basis for seeking recognition of the Training program and/or Units of Competency (UOCs), within the national register of vocational education and training, where this is a requirement of the Contract.

3.3   The Commonwealth uses the TRS:

a.   to understand the requirements for a Training solution, and the related scope of Training design and development activities to be undertaken by the Contractor;

b.   as a basis for evaluating the Training courses, Training Equipment, and Training Materials as part of subsequent Verification and Validation (V&V) activities; and

c.   to assist the Commonwealth attain recognition of the Training and/or UOCs within the national vocational education and training system, if the Commonwealth seeks this accreditation outside of the Contract.

4.   **INTER-RELATIONSHIPS**

4.1   The TRS inter-relates with the following data items, where these data items are required under the Contract:

a.   System Specification (SS);

b.   Support System Specification (SSSPEC);

c.   Verification Cross Reference Matrix (VCRM);

d.   Integrated Support Plan (ISP);

e.   Training Support Plan (TSP);

f.   Support Services Management Plan (SSMP);

g.   Verification and Validation Plan (V&VP);

h.   Performance Needs Analysis Report (PNAR);

i.   Learning Management Packages (LMPs);

j.   Support System Technical Data List (including the Training Materials List);

k.   Training Equipment List (TEL); and

l.   Recommended Provisioning List (RPL).

5.   **APPLICABLE DOCUMENTS**

5.1   The following documents form a part of this DID to the extent specified herein:

SADL Guide	Defence Learning Manual chapter 4: the Systems Approach to Defence Learning Practitioners' Guide
	Standards for Training Packages, National Skills Standards Council
	The applicable ADF Service Training Manual, as specified in the Statement of Work

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled "General Requirements for Data Items".

6.1.2   Unless otherwise specified in the Contract, TRSs shall address Training for the:

a.   Commonwealth,

b.   Contractor (Support), and

c.   Subcontractors (Support).

Note: Additional TRS information required in accordance with the SADL Guide (ie, not included in this DID) may be added by the Commonwealth following delivery of the data item.

6.1.3   The TRS shall accord to the requirements of the 'Analyse Phase' in the SADL Guide.

6.1.4   When the Contract has specified delivery of another data item that contains aspects of the required information, the TRS shall summarise these aspects and refer to the other data item.

6.1.5   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   The TRS shall have a heading that includes the job name for which the TRS is prepared.

6.2.2   Background

6.2.2.1   The TRS shall identify the input giving rise to the Training requirement (eg, to perform an activity that is related to an item delivered under the Contract).

6.2.2.2   The TRS shall include a job classification section that includes (as summarised from the job specification(s)):

a.   job name / title;

b.   job code number;

c.   job designation;

d.   job description; and

e.   job function;

6.2.2.3   The TRS shall include a Training course summary section that includes:

a.   course name / title;

b.   course code number;

c.   course description;

d.   Defence sponsor, where this information is provided by the Commonwealth;

e.   rank / level; and

f.   organisational structure, identifying the organisation (eg, Commonwealth or Contractor (Support)) and business unit where the trained Personnel will work.

6.2.3   Aim

6.2.3.1   The TRS shall include a statement of aim, which refers to the identification of the most appropriate Training solution for the specific job.

6.2.4   Supporting and Associated Documentation

Note: The associated documents may be produced as part of the TRS or may otherwise be required in accordance with the Contract or the Approved TSP.

6.2.4.1   The TRS shall list the documents supporting or otherwise associated with the TRS including, as applicable, the:

   a.   Risk Assessment Summary (SADL product AP2);

   b.   Job Task Profile (SADL product AP3);

   c.   Job Specifications (SADL product AP4);

   d.   Target Population Profile (SADL product AP5);

   e.   Gap Analysis Statement (SADL product AP6);

   f.   Feasibility Analysis Report (SADL product AP7);

   g.   Business Case (SADL product AP10); and

   h.   Implementation Schedule (SADL product AP11).

6.2.4.2   If not otherwise delivered under the Contract, the documents listed under clause 6.2.4.1 shall be included in annexes to the TRS.

6.2.5   Training Requirement - People

6.2.5.1   The TRS shall describe the people who are candidates for Training in a Target Population Profile (SADL product AP5), including:

   a.   the number of people to be employed in the related job and the anticipated personnel turnover rate;

   b.   the expected numbers of trainees for Introduction into Service Training (including initial Training for training personnel as applicable); and

   c.   the expected throughput of trainees, per year, for Sustainment Training, Continuation Training and Conversion Training, as applicable.

6.2.5.2   The TRS shall include a trainee population profile, summarising the expectations for previous education and experience. If the Commonwealth provides details of the target population profile, such as career path and typical employment at Defence units, then the TRS shall incorporate the relevant information.

6.2.5.3   The TRS shall outline the new skills, knowledge, attitudes and behaviours required to fill the identified performance gap.

6.2.6   Feasibility Analysis Process

6.2.6.1   The TRS shall summarise the feasibility analysis of the Training options considered in a Feasibility Analysis Report (SADL product AP7), including the criteria and rationale for the recommended Training solution.

6.2.7   Recommendations

6.2.7.1   The TRS shall outline the Training required to fill the identified performance gap (ie, for the skills, knowledge, attitudes and behaviours identified in response to clause 6.2.5.3).

6.2.7.2   The TRS shall describe the strategy to provide Training including, as applicable:

   a.   how multiple Training components / modules may be combined into one Training solution, and the sequence for undertaking those Training activities;

   b.   why the Training solution is the most effective at closing the performance gap; and

   c.   the organisations responsible for the design, development, implementation and evaluation (ie, Verification) of Training Materials and Training Equipment.

6.2.8   Training and Assessment Specifications

6.2.8.1   The TRS shall specify, as applicable:

      a.   the tasks / duty for the job that have resulted in an identified performance gap, explicitly identifying the gap, including when the gap is less than the whole task;

      b.   *mandatory qualifications* (eg, licences) that are to be achieved as a result of successful Training and assessment;

      c.   *desirable qualifications* that may be achieved as a result of successful Training and assessment; and

      d.   the Personnel Competencies to be attained from the Training, as described in accordance with clauses 6.2.8.2 and 6.2.8.3.

6.2.8.2   The TRS shall include a table that summarises the Personnel Competencies to be attained from the Training and which details the:

      a.   unit code, which is a unique reference number for the UOC from the national register of vocational education and training, where the UOC and training standard already exists;

      b.   unit title, which is a succinct statement of the broad area of competency covered and which is expressed in terms of the outcome;

      c.   related duty / task numbers for the job;

      d.   prerequisite competencies (by unit code and unit title);

      e.   co-requisite competencies (by unit code and unit title); and

      f.   type of Training required or recommended (eg, course based, on-the-job, etc).

Note: Further explanation of competency details may be obtained from the SADL Guide and Part 2 of the Standards for Training Packages.

6.2.8.3   The TRS shall include, as annexes, specifications for the UOCs including:

      a.   unit code for the UOC, when applicable;

      b.   unit title;

      c.   elements of competency, being the functions that combine to form the competency;

      d.   required knowledge, skills and attitudes required, including the generic key competencies that underpin the competency;

      e.   performance criteria by which the successful achievement of the competency elements are evaluated;

      f.   range statement that specifies the conditions under which the related tasks will be performed; and

      g.   an evidence guide that states how an assessment of competency will be achieved.

6.2.9   Resource Implications

6.2.9.1   The TRS shall summarise the resources required to sustain the Training program, following introduction, including the numbers of Personnel required, the Facilities needed, and resources for the support of Training Equipment.

6.2.9.2   If a *Feasibility Analysis Report* recommends that a significant item of Training Equipment or other Support Resource may be required, the TRS shall include, or cross-reference, a business case that justifies the proposed Support Resource on a cost-benefit basis (ie, a Support Resource may be justified by use with several courses and the full business case should not be repeated in each *Feasibility Analysis Report*).

6.2.10   Risk

6.2.10.1   Risks associated with the Training strategy, to implement the Training requirements, shall be documented in the Risk Register. However, the TRS shall include a risk assessment summary (in an annex) that highlights:

a.   the risk of not implementing the recommended Training solution; and

b.   any significant risks to the design, development and implementation of the Training solution and the associated risk-management strategies.

6.2.11   Conclusion

6.2.11.1   The TRS shall include a conclusion regarding the recommended Training course solution and a summary of the proposed course of action for design and development.

6.3   Annexes

6.3.1.1   The TRS shall include annexes (or cross-references) for the applicable:

a.   Job Task Profile (SADL product AP3);

b.   Job Specifications (SADL product AP4);

c.   Gap Analysis Statements (SADL product AP6);

d.   Feasibility Analysis Report (SADL product AP7);

e.   Risk Assessment Summary (SADL product AP2);

f.   Business Case (SADL product AP10); and

g.   Implementation Schedule (SADL product AP11).

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ILS-DES-DISP-V5.3

2.   TITLE: DISPOSAL PLAN (DISP)

3.   DESCRIPTION AND INTENDED USE

3.1   The Disposal Plan (DISP) provides details of the Contractor's analysis of, and proposed recommendations for, the disposal of items delivered under the Contract.

3.2   The DISP enables the Commonwealth to ensure that adequate disposal provisions are established and that the potential safety and environmental impacts are understood prior to any disposal action being undertaken.

4.   INTER-RELATIONSHIPS

4.1   The DISP is subordinate to the Integrated Support Plan (ISP), where this plan is required under the Contract.

4.2   The DISP inter-relates with the following data items, where these data items are required under the Contract:

      a.   Supply Support Development Plan (SSDP);

      b.   Support System Technical Data List (SSTDL); and

      c.   Life Cycle Cost Management Plan (LCCMP).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

      Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   When the Contract has specified delivery of another data item that contains aspects of the required information, the DISP should summarise these aspects and refer to the other data item.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   General Requirements

6.2.1.1   The DISP shall define the disposal methods and procedures required for Mission System and Support System items delivered under the Contract.

6.2.2   Responsibilities

6.2.2.1   The DISP shall include recommendations for those agencies and personnel or positions responsible for the execution of the DISP, including the disposal of items in the Mission System and Support System.

6.2.3   Removal of Items from the Operational Inventory

6.2.3.1   The DISP shall describe the recommended disposal activities to be conducted, which also takes into account any special provisions (eg, de-militarisation requirements, security requirements, and managing Problematic Substances), for items of the Mission System and Support System that:

a.   are retired from the inventory as part of planned maintenance, modification or upgrade schedules;

b.   are non-repairable and are removed and replaced as part of Corrective Maintenance or Preventive Maintenance;

c.   are retired and removed from the inventory at the end of their operational life; and

d.   are removed from the inventory when there is no longer any need for the system.

6.2.4   Program Planning Details

6.2.4.1   The DISP shall provide details of:

a.   the life of the components of the Mission System and Support System;

b.   the schedule for the withdrawal of items with finite lives or with planned retirement times, and the means by which this shall be achieved;

c.   the analysis and results of the potential and the planned schedule of items to undergo material recycling when entering the disposal phase;

d.   the method of reclamation, re-cycling or disposal of each item;

e.   the logistic support required to accomplish the disposal of items, including:

   (i)   Packaging, handling, storage and transportation;

   (ii)   security considerations during disposal;

   (iii) Technical Data introduction, disposal or amendment;

   (iv)   financial analysis and accounting of resale potential and achieved values for disposal items;

   (v)   associated Support and Test Equipment (S&TE); and

   (vi)   associated Spares (ie, that also require disposal).

6.2.5   Problematic Substances

6.2.5.1   In order to eliminate or reduce identified Problematic Substance items during the design process, the DISP shall:

a.   provide a summary of all Problematic Substances required to support a selected end item;

b.   identify all items having associated Problematic Substances storage, hazardous waste storage, or disposal costs; and

c.   include the quantities and costs, per task, of Problematic Substances required to satisfy the maintenance task requirements.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ILS-DES-FMECAR-V5.3

2.   TITLE: FAILURE MODE, EFFECTS AND CRITICALITY ANALYSIS REPORT

3.   DESCRIPTION AND INTENDED USE

3.1   The Failure Mode, Effects and Criticality Analysis (FMECA) Report (FMECAR) documents the results obtained from conducting a FMECA.

3.2   The Contractor uses the FMECAR to:

a.   define criteria for Maintenance analysis, Logistic Support Analysis (LSA), test planning, inspection and checkout requirements;

b.   document the maintainability design features that require corrective action;

c.   document the Failure Modes that require Corrective Maintenance;

d.   inform the design program about Failure Modes requiring corrective design actions or system operator work-around procedures;

e.   inform the system safety and system security programs; and

f.   derive information for the Reliability-Centred Maintenance (RCM) analysis process.

3.3   The Commonwealth uses the FMECAR to:

a.   understand and evaluate the Contractor's approach to meeting the requirements for Materiel System reliability and Maintenance;

b.   evaluate the Contractor's design for Maintenance Support with respect to Corrective Maintenance and Preventive Maintenance activities;

c.   assist with monitoring the progress of the Contractor's developmental activities under the Contract; and

d.   enable the Commonwealth to undertake Independent Verification and Validation (IV&V) of the Contractor's FMECA outcomes.

4.   INTER-RELATIONSHIPS

4.1   The FMECAR is subordinate to the following data items, where these data items are required under the Contract:

a.   Integrated Support Plan (ISP);

b.   Systems Engineering Management Plan (SEMP);

c.   Integrated Reliability, Maintainability and Testability Plan (IRMTP);

d.   System Safety Program Plan (SSPP); and

e.   Materiel System Security Management Plan (MSSMP).

4.2   The FMECAR inter-relates with the following data items, where these data items are required under the Contract:

a.   Level Of Repair Analysis Report (LORAR);

b.   Reliability Centred Maintenance Analysis Report (RCMAR);

c.   Task Analysis Report (TAR);

d.   the safety-related data items required under the Contract;

e.   the security-related data items required under the Contract; and

f.   Logistic Support Analysis Record (LSAR).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The FMECAR need not be developed as one document. It may be divided into volumes and sections, provided that the head document links all sub-documents, and references other data sources, together as a cohesive whole.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   General

6.2.1.1 The FMECAR shall document the results of the FMECA and the FMECA-maintainability information.

6.2.1.2 The FMECAR shall:

a.   provide an overview of the FMECA analysis activities performed, the standards used, and any significant recommendations;

b.   identify the level of analysis;

c.   summarise the results, including the implications for the design of the Mission System, the design of the Support System, system safety, system security, and any other requirements to satisfy the purposes set out in clause 3.2;

d.   document the data sources and techniques used in performing the analysis; and

e.   include a system definition narrative, resultant analysis data, and worksheets.

6.2.1.3 The 'worksheets' supplied as part of the FMECAR shall be organised in descending order aligned to the indenture levels of the Mission System and Support System.

6.2.1.4 FMECA-maintainability information worksheets shall be organised in the report following the FMECA worksheets for the same indenture level.

6.2.1.5 For each indenture level, the FMECAR shall contain the following:

a.   FMECA assumptions;

b.   block diagrams;

c.   completed FMECA worksheets; and

d.   completed FMECA-maintainability information worksheets.

6.2.2   Logistic Support Analysis Record Information

6.2.2.1 Where the Contract requires FMECA results to be included within a Logistic Support Analysis Record (LSAR), and the LSAR is concurrently accessible to the Commonwealth, then the FMECAR should minimise duplication of LSAR data and refer to the applicable LSAR data release as part of the report.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ILS-DES-LORAR-V5.3

2.   TITLE: LEVEL OF REPAIR ANALYSIS REPORT

3.   DESCRIPTION AND INTENDED USE

3.1   The Contractor uses the Level of Repair Analysis (LORA) Report (LORAR) to:

a.   describe how the Contractor's LORA activities were conducted;

b.   document the results of the Contractor's LORA activities; and

c.   make recommendations to the Commonwealth on the logistic cost and operational advantages concerning:

(i)   repair versus discard-at-failure;

(ii)   optimum repair levels;

(iii)   Support and Test Equipment (S&TE) requirements;

(iv)   maintenance facility requirements;

(v)   maintenance-support and supply-support Life Cycle Cost (LCC);

(vi)   spare parts provisioning and specific design alternatives for each of the items undergoing the LORA.

3.2   The Commonwealth uses the LORAR to:

a.   understand and evaluate the Contractor's approach to meeting the LORA;

b.   monitor and evaluate the Contractor's design for the Mission System and Support System with respect to maintainability and the maintenance level allocations resulting from the LORA; and

c.   enable the Commonwealth to undertake Independent Verification and Validation (IV&V) of the Contractor's LORA outcomes.

4.   INTER-RELATIONSHIPS

4.1   The LORAR is subordinate to the following data items, where these data items are required under the Contract:

a.   Integrated Support Plan (ISP), and

b.   Integrated Reliability, Maintainability and Testability Plan (IRMTP).

4.2   The LORAR inter-relates with the following data items, where these data items are required under the Contract:

a.   Life Cycle Cost Report and Model (LCCRM),

b.   Failure Mode, Effects and Criticality Analysis Report (FMECAR),

c.   Reliability Centred Maintenance Analysis Report (RCMAR),

d.   Task Analysis Report (TAR), and

e.   Logistic Support Analysis Record (LSAR).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The LORAR shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The LORAR need not be developed as one document. It may be divided into volumes and sections, provided that the head document links all sub-documents together as a cohesive whole.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   Introduction

6.2.1.1   The LORAR shall provide an overview of the LORA performed, the LORA model(s) used, a description of the maintenance alternatives considered, and the key recommendations resulting from the analysis.

6.2.2   LORA Assumptions

6.2.2.1   The LORAR shall describe the assumptions made when performing the LORA, including the economic and non-economic (eg, operational) LORA criteria.

6.2.3   LORA Candidate Items

6.2.3.1   The LORAR shall include the list of LORA Candidate Items.

6.2.3.2   The LORAR shall describe the methodology used for determining which items were subject to LORA, including the relationship with LSA Candidate Items.

6.2.4   LORA Models

6.2.4.1   The LORAR shall identify the source of data for LORA models when not sourced from the LSAR.

6.2.4.2   The LORAR shall identify and describe the LORA model or models that were used for conducting LORA(s), the class(es) of LORA that were performed, and the costing model used. There are three classes of LORA, including system or end-item analysis, subsystem or item analysis, and specific aspects of repair analysis.

Note: The LORA model(s) should reflect the Commonwealth's maintenance philosophy and support concept, as described in the Operational Concept Document (OCD), Function and Performance Specification (FPS), or separate reference. The Contractor should ensure that the model is verified by the Commonwealth.

6.2.4.3   The LORAR shall, for each applicable LORA Candidate Item, identify:

a.   the applicable LORA tasks undertaken;

b.   which LORA model was used for the LORA Candidate Item; and

c.   justifications for any non-economic considerations that may impact decisions derived from the economic considerations.

6.2.5   LORA Recommendations

6.2.5.1   The LORAR shall describe the Contractor's level of repair or discard recommendation for each LSA Candidate Item.

6.2.5.2   The LORAR shall describe the sensitivity analysis undertaken.

6.2.5.3   The LORAR shall describe the recommendations from sensitivity analysis.

6.2.5.4   The LORAR shall describe recommendations to the equipment designer to address LORA considerations.

DATA ITEM DESCRIPTION

1.   **DID NUMBER:**   **DID-ILS-DEF-PNAR-V5.3**

2.   **TITLE: PERFORMANCE NEEDS ANALYSIS REPORT**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The Performance Needs Analysis Report (PNAR) documents the results of the Contractor's performance needs analysis, which is undertaken during the '*analyse*' phase as defined by the Systems Approach to Defence Learning (SADL) model (ie, including analyse, design, develop, implement and evaluate phases). The PNAR identifies the activities and level of performance needed by Personnel to operate and support the Materiel System. The PNAR also identifies recommended Training solutions.

Note: While the SADL recognises different forms of learning, the Contract seeks formal Training methods that can be delivered by a Defence unit or support contractor. Also, the SADL Analyse phase focuses upon a single job, whereas a PNAR may cover a range of jobs.

3.2   The Contractor uses the PNAR to:

     a.   document the results of the performance needs analysis, including the identification of the new or modified skills required to operate and support the Materiel System;

     b.   inform the Commonwealth of the formal learning and development (ie, Training) solutions recommended to address the performance needs;

     c.   provide input into the Training Requirements Specification (TRS), when included in the Contract, for each new or modified course requirement identified; and

     d.   inform the planning of the Training design and development phases.

3.3   The Commonwealth uses the PNAR to:

     a.   understand the scope of the Training programs to be designed and developed;

     b.   assist in evaluating the design of the Mission System and Support System Components (eg, the complexity of human-machine interfaces);

     c.   gain an understanding of implementation requirements, including Commonwealth involvement in course accreditation, Support Resources and Training delivery; and

     d.   inform the learning and development strategies to be prepared by Defence (in accordance with the SADL) for internal use.

4.   **INTER-RELATIONSHIPS**

4.1   The PNAR is subordinate to the following data items, where these data items are required under the Contract:

     a.   Integrated Support Plan (ISP); and

     b.   Training Support Plan (TSP).

4.2   The PNAR inter-relates with the following data items, where these data items are required under the Contract:

     a.   Task Analysis Reports (TARs);

     b.   Training Requirements Specifications (TRSs);

     c.   Learning Management Packages (LMPs);

     d.   Human Engineering Program Plan (HEPP);

     e.   Personnel Resources Requirements List (PRRL); and

     f.   Contract Master Schedule (CMS).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

SADL Guide   Defence Learning Manual chapter 4: the *Systems Approach to Defence Learning Practitioners' Guide*

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   When the Contract has specified delivery of another data item (eg, a database) that contains aspects of the required information, the PNAR shall summarise these aspects and refer to the other data item.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.1.4   Unless specified otherwise in the SOW, or an applicable Approved plan, the *SADL Guide* provides guidance for the generic format of the subordinate documents identified in this DID.

6.2   Specific Content

Note: The SADL Guide includes templates for supporting information (in annexes) that require additional Commonwealth information in order to support internal approvals and management.

6.2.1   General

6.2.1.1   Unless otherwise specified in the Contract, the PNAR shall address performance needs for:

a.   Commonwealth Personnel,

b.   Contractor (Support) Personnel, and

c.   Subcontractor (Support) Personnel.

6.2.1.2   The PNAR shall include a document hierarchy showing annexes / supporting information. For example:

Performance Needs Analysis Report

Job Details

Job Task Profiles

Job Specifications

Target Population Profiles

Gap Analysis Statements

Feasibility Analysis Reports

Support Resource Business Cases

Risk Assessments

Existing Training course details and Units of Competency

6.2.1.3   The document hierarchy shall display how the PNAR is organised to cover the different trade and/or professional groups that will operate and support the Materiel System.

6.2.2   Performance Needs Analysis Summary

6.2.2.1   The PNAR shall include an introduction that summarises the range of learner groups analysed and the source of new and/or modified performance needs, such as the modified or developmental components of the Materiel System.

6.2.2.2 The PNAR shall summarise the analysis of performance needs undertaken, highlighting any differences from the Approved TSP or Approved ISP, whichever is the governing plan under the Contract, and including:

    a.   a description of the methodology, tools and data sources employed;

    b.   the key assumptions on which the analysis was based; and

    c.   the process undertaken to develop:

        (i)   job task profiles,

        (ii)   job specifications,

        (iii)   target population profiles, and

        (iv)   gap analysis statements.

6.2.3 Job Task Profiles

6.2.3.1 The PNAR shall include *Job Task Profiles* (SADL product AP3) as annexes that, for each job and for each new or modified task within that job, include:

    a.   a unique task reference number;

    b.   a description of the task to be performed (performance requirement), including:

        (i)   identification of each task that is unique to the job, with an assessment of the difficulty, importance and frequency of each task;

        (ii)   identification of tasks that are common with another job, with reference to the related job task profile; and

        (iii)   cross-references to source information (eg, Task Personnel Competency Reports when required under the Contract);

    c.   the work conditions (ie, environmental factors) relevant to job / task performance;

    d.   standards for task performance and the associated evaluation methods;

    e.   details of licences or other formal qualifications required to perform the task;

    f.   the identification of potential alignment with Units of Competency (UoCs), or elements of UoCs, from Training packages within the national register of Vocational Education and Training (VET); and

    g.   any applicable comments in relation to the topics above.

Note: Depending upon the requirements of the Contract it may be necessary for the Commonwealth to be involved in the development or provision of Job Specifications and/or Target Population Profiles.

6.2.4 Job Specifications

6.2.4.1 The PNAR shall include draft *Job Specifications* (SADL product AP4) as annexes that, for each new or modified job for which Training is recommended, includes:

    a.   the title or descriptive name for the job;

    b.   a designation, identifying the trade category / skill specialty and level, and the organisation / work group to which the job belongs;

    c.   a short job description, which summarises the duties performed in accordance with the applicable job task profiles (clause 6.2.3);

    d.   the function, describing job performance in the context of the Materiel System;

    e.   job responsibilities, including delegated responsibilities and supervisory roles;

    f.   a summary of the environmental conditions including work conditions (from job task profiles), hazards, team environment, and physical and mental demands;

    g.   required security clearance and any medical or psychological requirements; and

    h.   details of the required experience, qualifications and other recommended Training.

6.2.4.2   The job specifications shall include relevant cross-references to the related job task profiles and target population profile.

6.2.4.3   The job specifications for Commonwealth Personnel shall incorporate any additional information provided by the Commonwealth.

6.2.5   **Target Population Profiles**

6.2.5.1   The PNAR shall contain *Target Population Profiles* (SADL product AP5) as annexes that include, for groups of learners (to the extent known to the Contractor):

   a.   the job classification for the target population, including:

      (i)   a designation / reference descriptor, if known / applicable;

      (ii)   situation (ie, trade, work area and experience / rank of the learner);

      (iii)   a job description (identifying the work involved);

      (iv)   the function (identifying the role / need within Defence); and

      (v)   the work environment;

   b.   group and individual characteristics and qualities of the target population, including:

      (i)   the geographic distribution;

      (ii)   professional experience (typical and prerequisite) of the population;

      (iii)   prior learning (eg, formal education and training) by the population, including competencies, qualifications, certificates and licences;

      (iv)   group characteristics including workforce stability (eg, turnover rates will be important in determining the expected numbers of learners per annum); and

      (v)   the motivation for Training; and

   c.   learner characteristics including learning abilities and preferred delivery method; and

   d.   any comments applicable to the above information.

6.2.5.2   The target population profiles for Commonwealth Personnel shall incorporate any additional information provided by the Commonwealth.

6.2.6   **Gap Analysis Statements**

6.2.6.1   The PNAR shall include a summary of the gap analysis undertaken, including the range of jobs and performance needs analysed.

6.2.6.2   The PNAR shall include *Gap Analysis Statements* (SADL product AP6) as annexes, to document the results of the gap analysis and which includes, for each applicable job task:

   a.   the task / subtask reference number;

   b.   the required task / subtask performance (from clause 6.2.3);

   c.   the related abilities of the target population (from clause 6.2.5);

   d.   if an existing Training course includes a learning outcome related to the task / subtask, details of the course name, number and the learning outcome; and

   e.   the identified gap, or no gap, between the abilities of the target population, considering existing Training, and the performance required by the job task profile (from clause 6.2.3).

6.2.6.3   Where an existing Training course includes a required learning outcome (6.2.6.2.d), the *gap analysis statement* shall include an assessment that considers the applicability of the learning outcome and course to the job, any modifications to the course needed to suit the job, and potential overlaps between the existing and any new Training course.

6.2.6.4   Each *gap analysis statement* shall include a recommendation, such as:

   a.   to conduct a feasibility analysis of Training solutions for the identified gap;

   b.   that a non-Training solution be investigated; or

c.   that, based on the scope of tasks, a new job be created within the Commonwealth, with an explanation why the tasks could not be achieved within an existing job.

6.2.7   Feasibility Analysis Process

Note: The Feasibility Analysis Process may be extensive for large programs. There may be many factors to consider and substantial business case analysis required. The input to this process is the identified gaps and the output includes the recommended Training solutions, including courses and perhaps modules.

6.2.7.1   The PNAR shall include a summary of the feasibility analysis process undertaken by the Contractor, highlighting any differences from the Approved TSP or Approved ISP, whichever is the governing plan under the Contract, and including a summary of:

a.   the range of jobs, with identified performance gaps, that were analysed;

b.   the Training solutions recommended;

c.   any significant Support Resources recommended (eg, online training systems and Training Equipment including simulators or part-task trainers); and

d.   significant risks and the Contractor's proposals for risk mitigation.

6.2.7.2   The PNAR shall include *feasibility analysis reports* (SADL product AP7) as annexes, to document the results of the feasibility analysis (of Training) for each applicable job, including:

a.   a title that identifies the job analysed;

b.   a task / subtask reference number that is sufficient to cross-reference the job task profile, job specification, and gap analysis;

c.   each Training delivery method considered (eg, classroom, online, on-the-job and blended solutions), including the Training provider (eg, Contractor (Support) or Defence);

d.   an evaluation of each Training delivery method analysed, which considers:

(i)   advantages;

(ii)   disadvantages, identifying the reasons for a Training delivery method being rejected;

(iii) any major Support Resources required; and

(iv)   associated risks and mitigation strategies;

e.   the recommended Training solution (or that no Training solution is recommended) and the rationale for that conclusion; and

f.   an evaluation of common Training requirements across job types (which may be used to inform course and or module scope).

6.2.7.3   If a *feasibility analysis report* considers a significant Support Resource may be required, it shall include, or cross-reference, a business case that justifies the Support Resource on a cost-benefit basis (ie, a Support Resource may be justified by use with several courses and the business case should not be repeated in each feasibility analysis report).

6.2.8   Risk Assessment Summary

6.2.8.1   Training-related risks shall be documented in the Risk Register; however, the PNAR shall summarise significant risks to the design, development, and implementation of the recommended Training courses and the Contractor's proposed risk mitigation strategies.

6.2.9   Recommendations

6.2.9.1   The PNAR shall outline the Contractor's synthesis of the requirements for Training for all jobs, particularly focusing upon common Training requirements.

6.2.9.2   The PNAR shall outline the proposed Training solutions (as annexes for details of each job or course, if necessary), including:

a.   the courses to be designed and developed; and

b.   key requirements identified for each course (and included in a TRS (SADL product AP9) when a TRS is required under the Contract).

6.2.9.3   The PNAR shall detail how the proposed Training solutions combine to provide the most effective and efficient overall Training solution for the Materiel System.

6.3   Annexes

6.3.1   The PNAR shall include annexes, as required, for:

a.   Job Task Profiles (SADL product AP3) (clause 6.2.3);

b.   Job Specifications (SADL product AP4) (clause 6.2.4);

c.   Target Population Profiles (SADL product AP5) (clause 6.2.5);

d.   Gap Analysis Statements (SADL product AP6) (clause 6.2.6); and

e.   Feasibility Analysis Reports (SADL product AP7) (clause 6.2.7).

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ILS-DES-RCMAR-V5.3

2.   TITLE: RELIABILITY CENTRED MAINTENANCE ANALYSIS REPORT

3.   DESCRIPTION AND INTENDED USE

3.1   The Reliability Centred Maintenance (RCM) Analysis Report (RCMAR) documents the outcomes of the RCM analysis activities conducted by the Contractor in accordance with the Contract.

3.2   The Contractor uses the RCMAR to:

      a.   describe how the Contractor's RCM analysis activities were conducted;

      b.   document the results of the Contractor's RCM analysis activities; and

      c.   make recommendations to the Commonwealth on the Preventive Maintenance tasks to be undertaken for the Mission System and Support System.

3.3   The Commonwealth uses the RCMAR to:

      a.   understand and evaluate the Contractor's approach to meeting the requirements of the Contract;

      b.   monitor and evaluate the Contractor's design for maintenance support with respect to preventive maintenance activities; and

      c.   enable the Commonwealth to undertake Independent Verification and Validation (IV&V) of the Contractor's RCM analysis outcomes.

4.   INTER-RELATIONSHIPS

4.1   The RCMAR is subordinate to the following data items, where these data items are required under the Contract:

      a.   Integrated Support Plan (ISP), and

      b.   Integrated Reliability, Maintainability and Testability Plan (IRMTP).

4.2   The RCMAR inter-relates with the following data items, where these data items are required under the Contract:

      a.   Failure Mode, Effects and Criticality Analysis Report (FMECAR),

      b.   Level Of Repair Analysis Report (LORAR),

      c.   Task Analysis Report (TAR), and

      d.   Logistic Support Analysis Record (LSAR).

4.3   Information delivered through the FMECAR is required by this report.

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

      Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   This data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The RCMAR need not be developed as one document. It may be divided into volumes and sections, provided that the head document links all sub documents, and references other data sources, together as a cohesive whole.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2	**Specific Content**

6.2.1   **RCM Analysis Summary**

6.2.1.1 The RCMAR shall provide an overview of the RCM analysis activities performed, the RCM standards used, the RCM logic model(s) used, and any significant recommendations or observations resulting from the analysis.

6.2.2   **RCM Analysis Assumptions**

6.2.2.1 The RCMAR shall describe the assumptions made when performing the RCM analysis.

6.2.3   **RCM Logic Models**

Note: The SOW may specify the use of particular RCM logic models. The ISP should identify if different RCM logic is applied to different types of items.

6.2.3.1 The RCMAR shall identify the RCM logic models used and justify the choice of the RCM logic models selected.

6.2.4   **Preventive Maintenance Task List**

6.2.4.1 The RCMAR shall identify, for each item of indenture for the Mission System and Support System, the Preventive Maintenance tasks to be undertaken, with a reference to the appropriate RCM worksheet detailing the analysis undertaken.

6.2.5   **RCM Worksheets**

6.2.5.1 The RCMAR shall include all RCM worksheets used in the RCM analysis.

6.2.5.2 The RCMAR shall include all relevant FMECA worksheets with the RCMAR.

6.2.6   **Logistic Support Analysis Record Information**

6.2.6.1 Where the Contract requires RCMAR results to be included within a Logistic Support Analysis Record (LSAR) and the LSAR is concurrently accessible to the Commonwealth, then the RCMAR should minimise duplication of LSAR data and refer to the applicable LSAR data release as part of the report.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ILS-DES-SSDESC-V5.3

2.   TITLE: SUPPORT SYSTEM DESCRIPTION

3.   DESCRIPTION AND INTENDED USE

3.1   The Support System Description (SSDESC) describes the Contractor's design for the Support System, including each of the Support System Constituent Capabilities (SSCCs), to meet the requirements of the Support System Functional Baseline (SSFBL). The SSDESC is not a substitute for the detailed support plans required by a support contract, but should provide the basis from which these plans would be developed.

3.2   The Contractor uses the SSDESC to:

a.   describe the design of the Support System, including the SSCCs;

b.   demonstrate how the Support System will achieve the requirements of the SSFBL and, where applicable, the support-related Australian Industry Activities (AIAs) (including Defence-Required Australian Industrial Capabilities (DRAICs)) set out in Attachment F;

c.   describe the organisations to be involved in the provision of support, including their roles and the scope of work that they will undertake;

d.   record the evolving design of the Support System commensurate with the maturity of the design of the Mission System(s);

e.   assist to demonstrate that the combined solution for the Mission System(s) and Support System will result in a minimised Life Cycle Cost (LCC);

f.   identify and define the requirements for Support Resources, including any major developmental or critical Support System Components; and

g.   provide the basis for the design, development, production and provisioning requirements, as applicable, for the required Support Resources and Training.

3.3   The Commonwealth uses the SSDESC to:

a.   understand and evaluate the Contractor's design for the Support System;

b.   gain a detailed understanding of the Commonwealth's role in the delivery of support services under the implemented Support System;

c.   understand the Commonwealth's role in the implementation of the Support System;

d.   assist with the identification of risks that require Commonwealth action; and

e.   inform the development or update of the Contract (Support), as applicable.

4.   INTER-RELATIONSHIPS

4.1   The SSDESC is subordinate to the Support System Specification (SSSPEC).

4.2   The SSDESC is developed in accordance with the Approved Integrated Support Plan (ISP).

4.3   The SSDESC inter-relates with all of the Integrated Logistic Support (ILS) data items that define the detailed support requirements, including the following data items, where these data items are required under the Contract:

a.   Task Analysis Report (TAR);

b.   Performance Needs Analysis Report (PNAR);

c.   Logistic Support Analysis Record (LSAR);

d.   Level Of Repair Analysis Report (LORAR);

e.   Facilities Requirements Analysis Report (FRAR);

f.   Support System Technical Data List (SSTDL);

g.   Australia and New Zealand (ANZ) Subcontractor Technical Data List (ASTDL);

h.   recommended provisioning lists for Support Resources (eg, Spares, Packaging, Support and Test Equipment (S&TE), and Training Equipment);

i.   Personnel Resource Requirements List (PRRL);

j.   Software Support Plan (SWSP);

k.   In-Service Security Management Plan (ISSMP); and

l.   Disposal Plan.

4.4   The SSDESC inter-relates with the Australian Industry Capability (AIC) Plan, the DRAIC Plan (DRAICP), and the LCC Report and Model (LCCRM), where these data items are required under the Contract. The SSDESC also inter-relates with any support-related AIAs identified in Attachment F.

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   Where the Contract has been awarded with a linked or associated Contract (Support), the SSDESC shall include the scope of work of the Contract (Support) in the description of the Contractor's design for the Support System.

6.1.3   Where the Contract has not been awarded with a linked or associated Contract (Support), the SSDESC shall identify requirements, including those for support services and related outcomes, to be provided by support contractors to enable support of the Materiel System at a minimised LCC.

6.1.4   The SSDESC shall include detailed design descriptions for each SSCC in annexes, with the body of the SSDESC summarising and cross-referencing those annexes.

6.1.5   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   Mission System and Support System Overview

6.2.1.1   The SSDESC shall provide an overview of the designs for the Mission System(s) and Support System, highlighting the major elements of each system that will require support.

6.2.1.2   Where a Mission System is a distributed system or a system that will be deployed, the SSDESC shall highlight each element of the system that will be, or could be, located away from fixed support venues.

6.2.2   System-wide Design Decisions

6.2.2.1   The SSDESC shall explain the system-wide design decisions, including:

Note: Users of the Support System are both external and internal. Mission System operators and operational commanders can be considered as external users, while almost all other users are internal.

a.   decisions about the behavioural design of the Support System (ie, how it will behave from a user's point of view in meeting the requirements defined in the SSFBL);

b.   decisions that affect the design of the SSCCs; and

c.   decisions that affect the design or selection of Support Resources and Training.

6.2.2.2   In explaining the system-wide design decisions the SSDESC shall highlight:

a.   if all such decisions are explicit in the specified requirements or are deferred to the design of the Support System Components;

b.   how the key system functionality will be met;

c.   those design decisions that are dependent upon specific states or modes (as defined in the SSSPEC / SSFBL);

d.   the key design drivers;

e.   any assumptions underpinning the design decisions;

f.   any constraints or limitations, including design and implementation constraints defined in the SSFBL;

g.   how the design addresses the support-related AIAs identified in Attachment F;

h.   how the design minimises LCC, with appropriate cross-references to the LCCRM;

i.   how the design addresses any Stock Items with critical and extended turn-around-times and order-response times / long lead-times;

j.   how the design addresses ongoing security concerns, such as those arising out of cyber security and Cyberworthiness;

k.   the life cycles of Support System Components and Mission System components that are shorter than the Life-of-Type (LOT) of the Mission System (ie, due to Obsolescence), and the Contractor's assessment of replacement schedules; and

l.   how the Support System design will change (if applicable) over the LOT of the Mission System, particularly focussing on any in-country elements of support.

6.2.3   **System Architectural Design**

6.2.3.1   **Support Locations**

6.2.3.1.1   The SSDESC shall describe the sites from which support will be provided, including:

a.   an overview of the support services that will be provided at each site;

b.   a description of the organisational entities that will be located at each site, including a brief overview of their responsibilities at each site;

c.   a brief description as to whether the support capability required at each site currently exists or requires development, modification and/or expansion; and

d.   a brief description of the extent of the development or modification for those sites where development or modification is required.

6.2.3.1.2   The SSDESC shall describe those elements of the Mission System that provide Support System functionality (eg, storage and maintenance facilities on a ship, or a maintenance-management system integrated into a combat system). If this information is provided in other data items (eg, in the Mission System design documents), the SSDESC shall include a summary of the function and associated design details, and cross-reference these other documents.

6.2.3.2   **Support Services Management**

6.2.3.2.1   The SSDESC shall describe the proposed organisational relationships and the division of responsibilities between organisations that will provide support services, specifically identifying:

a.   the envisaged roles and responsibilities of the Commonwealth;

b.   the roles and responsibilities of the Original Equipment Manufacturers (OEMs) for the Mission Systems, major subsystems, and significant Support System Components;

c.   the roles and responsibilities of the Contractor and support contractors including, where applicable, the Contractor (Support) and Subcontractors (Support);

d.   the integration of any applicable DRAICs into the organisational arrangements;

e.   constraints on the allocation of roles and responsibilities including any caused by limits to Technical Data and Software rights, foreign government export controls, or the sustainability of workforce expertise in bespoke skills; and

f.   the organisational arrangements needed to integrate the SSCCs to enable the provision of the required support services.

6.2.3.3   Support Resources

6.2.3.3.1   The SSDESC shall identify any Support Resources that are affected by, or needed in order to meet, special requirements (eg, unique physical conditions) associated with the Support System, including:

a.   deployability;

b.   environmental conditions (including natural conditions and radiological, biological and chemically harsh environmental conditions, if applicable);

c.   transportability;

d.   safety (eg, from hazards present in specific deployed environments);

e.   environmental (protection) considerations;

f.   useability and human factors;

g.   security and privacy, including in relation to physical security, Emanation Security (EMSEC), Information and Communications Technology (ICT) security and cyber security); and

h.   adaptation for variations in role and/or changes to the support environment.

6.2.3.3.2   The SSDESC shall describe how the Support System will address the special requirements, including those listed in clause 6.2.3.3.1, through the selection and/or design of the Support Resources that are identified in response to clause 6.2.3.3.1.

6.2.3.3.3   If not otherwise identified in response to clause 6.2.3.3.1, the SSDESC shall identify the significant Support System Components, including those items that:

a.   interface to a Mission System;

b.   are high cost (ie, greater than A$200,000 per item);

c.   form part of a DRAIC;

d.   are items of S&TE and Training Equipment critical to the Support System meeting its performance objectives;

e.   will be, or are likely to be, strategically significant to the Commonwealth (eg, for Sovereignty reasons and/or to ensure LOT support); and

f.   are only available from a limited number of suppliers due to their specialist nature.

6.2.3.3.4   Where the significant Support System Components already exist in the Commonwealth inventory, the SSDESC shall identify those components and, if the components have been mandated by the Commonwealth, the SSDESC shall highlight whether or not the components represent a significant constraint on the design of the Support System.

6.2.3.3.5   The SSDESC shall describe and quantify the energy resource(s) (eg, fuel and electrical power) needed to sustain Mission System operations and, where applicable, items of S&TE and Training Equipment with significant energy demands, including:

a.   the 'business as usual' demand and peak demands for the different missions, states, modes and scenarios described in the OCD;

b.   any expected changes to the source and/or delivery method applicable to different missions, states, modes and scenarios; and

c.   any assumptions or specific actions needed to ensure energy efficiency.

6.2.4   Concept of Execution

6.2.4.1   The SSDESC shall describe the concept of execution for the Support System, demonstrating how the Contractor's design will enable the required support services to be provided. The SSDESC shall include diagrams (eg, flow charts, data flow diagrams and enhanced functional flow block diagrams) and descriptions that show the dynamic relationships and processes to integrate the SSCCs to enable the provision of the required support services (with appropriate cross-references to the more detailed descriptions in the annexes).

6.2.4.2   Where either a Mission System or the Support System is required to operate in differing states or modes, the concept of execution shall include a description that shows how the design for the Support System will meet the unique requirements associated with the different states and modes, including any requirements associated with transitioning between the different states and modes. The concept of execution should primarily address those states and modes that are major drivers of the Support System design or LCC (or both), including (for example):

      a.   peacetime operations versus contingency operations;

      b.   normal operations versus training operations; and

      c.   significant failure modes (eg, failure of a node in a distributed system).

6.2.4.3   If the deployed operation of the Mission System(s) requires part of the Support System to be located 'in-theatre', or near the area of operations, then the SSDESC shall describe the expected scope of that deployed support (also known as the 'logistics footprint') based on the applicable scenarios in the OCD, including the following:

      a.   the numbers and skill categories of Personnel, including Defence and support contractor Personnel (as applicable);

      b.   the approximate volume (eg, length, height and width) and weight of Spares, S&TE, ordnance, Packaging and other items of the Materiel System to be:

            (i)   deployed to and recovered from the area of operations; and

            (ii)   transferred to / from the area of operations on a periodic basis (eg, monthly);

      c.   Facilities;

      d.   information management systems;

      e.   any equipment or procedures that are specific to deployed support; and

      f.   applicable transport modes for significant Support Resources.

6.2.5   Support System Performance

6.2.5.1   Where the Contract specifies performance requirements for Mission System availability (eg, for a Mission System, from a fleet of Mission Systems, or for nodes in a network), sustainment, response times (eg, for standby systems) or any other system-level performance measure, the SSDESC shall:

      a.   document how the Support System will provide the necessary capability and capacity to meet those performance requirements;

      b.   include cross-references to one or more annexes, as appropriate, that set out the associated analysis, performance parameters, calculations and/or modelling; and

      c.   identify any dependency on redundancies within the Mission System and the Support System, necessary to achieve the stated performance measures,

6.2.5.2   If the Contract specifies performance requirements (eg, availability) for a significant Support System Component or a support function, the SSDESC shall document the analysis, calculations and/or modelling needed to demonstrate that the Supportability of the applicable Support System Component's design and the Support System solution have the capability and capacity to meet those requirements.

6.2.5.3   Where a performance measure identified in response to clause 6.2.5.1 or 6.2.5.2 inter-relates to a Key Performance Indicator (KPI) in a Contract (Support), the SSDESC shall

document how the Contract (Support), as part of the Support System, can provide a level of service that will achieve the KPI (with annexes and cross-references, as appropriate, to the associated analysis, calculations and/or modelling).

6.2.5.4   The SSDESC shall describe how the Support System is designed to enable changes in capacity and capability to address major changes in the demand for support.

6.2.6   System Interface Design

6.2.6.1   The SSDESC shall describe the interfaces associated with the Support System design, including, as applicable:

   a.   interfaces between the Mission System and the Support System;

   b.   command, control, and communications interfaces, including those interfaces both within and between the Commonwealth and support contractors, including the Contractor (Support) and Subcontractors (Support);

   c.   maintenance pipeline and supply-chain interfaces, including those interfaces between the Commonwealth and support contractors, including the Contractor (Support) and Subcontractors (Support);

   d.   organisational, process, and information-system interfaces between SSCCs; and

   e.   data and information flows between the Commonwealth and support contractors, including the Contractor (Support) and Subcontractors (Support).

6.3   Requirements Traceability

6.3.1   The SSDESC shall provide the following traceability:

   a.   from each SSCC to the Support System requirements allocated to it;

   b.   from each significant Support System Component identified in clause 6.2.3.3.1 to the Support System requirements allocated to it;

   c.   from each Support System requirement to the SSCCs to which it is allocated; and

   d.   from each Support System requirement to the significant Support System Components identified in clause 6.2.3.3.1.

6.4   Annexes

6.4.1   General

6.4.1.1   The SSDESC shall include separate Annexes to describe the Contractor's design for each of the SSCCs.

6.4.2   Operating Support

6.4.2.1   The SSDESC shall describe the design of the Support System to enable the Mission System to be operated in its intended roles and environments over the LOT at a minimised LCC, including, where applicable:

   a.   the provision of Operating Support services by Defence and, where applicable, support contractors including the Contractor (Support) and Subcontractors (Support);

   b.   the identification of any applicable DRAICs or other support-related AIAs, and how these integrate into the design of this SSCC;

   c.   the required Support System Components to enable the Mission System to be operated, including the identification of any Support System Components that need to be developed or modified (eg, Facilities, Technical Data and operational support equipment, including personal protective equipment);

   d.   the use of Commonwealth-provided equipment, Facilities, and services in the provision of Operating Support services; and

   e.   the provision of consumables, such as power / fuel and munitions, that are required for the operation of the Mission System.

6.4.3   **Engineering Support**

6.4.3.1   The SSDESC shall describe the design of the Support System to enable the required engineering and design-management services (including Software support services) to be provided over the LOT at a minimised LCC, including, where applicable:

a.   the identification of each organisation that will be involved in the provision of engineering and design-management services, including:

(i)   the nature of the services to be provided by each organisation; and

(ii)   any limitations on the services provided by these organisations, including any caused by limits on design authority, Technical Data and Software rights, expertise, workforce sustainability and the envisaged scope of work;

b.   the identification of any applicable DRAICs or other support-related AIAs, and how these integrate into the design of this SSCC;

c.   how the applicable in-service regulatory / assurance requirements will be met, including in relation to ICT security and cyber security;

d.   how Configuration Management will be performed;

e.   how Software support will be undertaken, including a description of the Software support environment and Software engineering environment, including Software development environment and Software test environment;

f.   how Technical Data management will be undertaken including the standards, practices and technologies to be used that embody an integrated, open-system approach to the creation, management, exchange and use of Technical Data;

g.   the key Support System Components for each organisation to enable engineering and design-management services to be provided, including the identification of any Support System Components that need to be developed or modified (eg, Facilities and S&TE);

h.   the use of Logistic Information Management Systems (LIMS) by the organisations involved in the provision of engineering and design-management services, including the exchange of data between these systems;

i.   the use of Commonwealth-provided equipment, Facilities, and services in the provision of engineering and design-management services; and

j.   the Personnel numbers and the key competencies required by each of the organisations to enable engineering and design-management services to be provided.

6.4.4   **Maintenance Support**

6.4.4.1   The SSDESC shall describe the design of the Support System to enable the required Maintenance services to be provided over the LOT at a minimised LCC, including, where applicable:

a.   the identification of each organisation that will be involved in the provision of Maintenance services, including:

(i)   the nature of the services to be provided by each organisation; and

(ii)   any limitations on the services provided by these organisations, including any caused by limits on authority, Technical Data and Software rights, expertise, workforce sustainability and the envisaged scope of work;

b.   the identification of any applicable DRAICs or other support-related AIAs, and how these integrate into the design of this SSCC;

c.   how applicable in-service regulatory / assurance requirements will be met, including in relation to ICT security and cyber security;

d.   how health and usage monitoring data will be collected, analysed, and used;

e.   the key Support System Components for each organisation to enable Maintenance services to be provided, including the identification of any Support System Components that need to be developed or modified (eg, Facilities and S&TE);

f.   the use of LIMS by the organisations involved in the provision of Maintenance services, including the exchange of data between these systems;

g.   the use of Commonwealth-provided equipment, Facilities, and services in the provision of Maintenance services; and

h.   the personnel numbers and the key competencies required by each of the organisations to enable Maintenance services to be provided.

6.4.4.2   Where the Mission System(s) will be subject to programmed Maintenance cycles (eg, a fleet availability plan, annual works plan, or similar), the SSDESC shall:

a.   include an outline schedule of sufficient duration to illustrate a full Maintenance cycle of the Materiel System, when in a mature state; and

b.   describe the main parameters and assumptions underpinning the schedule, such as maintaining Mission System availability and phasing work to enable resource levelling.

6.4.5   Supply Support

6.4.5.1   The SSDESC shall describe the design of the Support System to enable the required supply services to be provided over the LOT at a minimised LCC, including, where applicable:

a.   the identification of each organisation that will be involved in the provision of supply services, including:

(i)   the nature of the services to be provided by each organisation; and

(ii)   any limitations on the services provided by these organisations, including any caused by limits on authority, Technical Data and Software rights, expertise, workforce sustainability and the envisaged scope of work;

b.   the identification of any applicable DRAICs or other support-related AIAs, and how these integrate into the design of this SSCC;

c.   how any applicable in-service regulatory / assurance requirements will be met, including in relation to ICT security and cyber security;

d.   the identification of any special requirements for packaging, handling, storage and transportation, including how these requirements will be met;

e.   the key Support System Components for each organisation to enable supply services to be provided, including the identification of any Support System Components that need to be developed or modified (eg, Facilities and S&TE);

f.   the use of LIMS by the organisations involved in the provision of supply services, including the exchange of data between these systems;

g.   the use of Commonwealth-provided equipment, Facilities, and services in the provision of supply services; and

h.   the Personnel numbers and the key competencies required by each of the organisations to enable supply services to be provided.

6.4.5.2   The SSDESC shall include a description of the supply chain, including (as applicable):

a.   the nodes in the supply chain, including Defence units, the Contractor (Support), Subcontractors (Support), other Defence contractors and OEMs;

b.   the relevant roles and capacity of each node, including any special requirements (eg, climate controlled storage or Hazardous Chemicals stored in bulk quantities);

c.   the applicable transport and distribution modes between various nodes and any special handling and transport requirements (eg, dangerous cargo);

d. the identification of critical and extended turn-around-times and order-response times / long lead-times;

e. how the supply chain changes for the different states, modes and operational scenarios identified in the OCD and/or SSSPEC; and

f. how considerations around supply chain security have been addressed and how the Support System will operate to continually monitor and manage supply chain security.

6.4.6 Training Support

6.4.6.1 The SSDESC shall describe the design of the Support System to enable the required Training services to be provided over the LOT at a minimised LCC, including, where applicable:

a. the identification of each organisation that will be involved in the provision of Training services, including:

(i) the nature of the services to be provided by each organisation; and

(ii) any limitations on the services provided by these organisations, including any caused by limits on authority, Technical Data and Software rights, expertise, workforce sustainability and the envisaged scope of work;

b. the identification of any applicable DRAICs or other support-related AIAs, and how these integrate into the design of this SSCC;

c. the key Support System Components for each organisation to enable Training services to be provided, including the identification of any Support System Components that need to be developed or modified (eg, Facilities, S&TE and Training Equipment);

d. the use of LIMS by the organisations involved in the provision of Training services, including the exchange of data between these systems;

e. the use of Commonwealth-provided equipment, Facilities, or services in the provision of Training services; and

f. the Personnel numbers and the key competencies required by each of the organisations to enable Training services to be provided.

6.4.6.2 The SSDESC shall document how the design of the Support System will provide the Training capacity (ie, student throughput) sufficient to operate and sustain the Materiel System (with cross-references to one or more annexes, where appropriate, that set out the associated analysis, calculations and/or modelling).

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ILS-DES-TAR-V5.3

2.   TITLE: TASK ANALYSIS REPORT (TAR)

3.   DESCRIPTION AND INTENDED USE

3.1   The Task Analysis Report (TAR) is a multi-purpose report that documents the outcomes of the task analyses conducted by the Logistic Support Analysis (LSA) program.

3.2   The Contractor uses the TAR to document the results of all analyses related to the:

   a.   identification of tasks associated with each Support System Constituent Capability (SSCC);

   b.   definition of resource requirements to perform each of the identified tasks associated with that SSCC;

   c.   definition of the procedures required to perform each of the identified tasks associated with that SSCC; and

   d.   identification of the Personnel Competency requirements to perform each of the identified tasks associated with that SSCC.

3.3   The Commonwealth uses the TAR to:

   a.   understand and evaluate the Contractor's approach to meeting the ILS Program requirements of the Contract; and

   b.   identify and understand the required tasks, resources, procedures, and Personnel Competency requirements associated with each SSCC.

4.   INTER-RELATIONSHIPS

4.1   The TAR is subordinate to the following data items, where these data items are required under the Contract:

   a.   Integrated Support Plan (ISP), and

   b.   Systems Engineering Management Plan (SEMP).

4.2   Delivery of a TAR may be supported by Logistic Support Analysis Record (LSAR) data.

4.3   The TAR provides input into the Performance Needs Analysis Report (PNAR).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

   Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   Unless otherwise specified in the Contract, the TAR shall address requirements for the:

   a.   Commonwealth,

   b.   Contractor (Support), and

   c.   Subcontractors (Support).

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   Option 1 - Task Inventory Report

6.2.1.1   When this DID is invoked under the Contract to define a Task Inventory Report for a SSCC, the data item shall identify the tasks associated with that SSCC. A task is a composite of related activities (perceptions, decisions, and responses) performed for an immediate purpose, and written using operative language (eg, change a tyre). All task descriptions shall consist of:

   a.   an action verb, which states what is to be accomplished in the task;

   b.   an object (eg, a candidate item identified using the criteria defined in the Approved ISP), which identifies what is to be acted upon in the task (including a reference to the object by LSA Control Number, or other reference to the product work breakdown structure as agreed by the Commonwealth); and

   c.   any qualifying phrases, which are intended to distinguish the task from related or similar activities, limit and define the scope of the task, and clearly communicate the nature of the task.

6.2.2   Option 2 - Task Resources Report

6.2.2.1   When this DID is invoked under the Contract to define a Task Resources Report for a SSCC, the data item shall identify the Support Resources required, including the quantities and duration required, to perform each task and subtask associated with that SSCC.

6.2.3   Option 3 - Task Procedures Report

6.2.3.1   When this DID is invoked under the Contract to define a Task Procedures Report for a SSCC, the data item shall provide the following information for that SSCC, in the same sequence as defined in the following subclauses:

   a.   subtasks associated with each task, where a subtask is an activity (perceptions, decisions, and responses), which fulfils a portion of the immediate purpose within a task (eg, remove lug nuts); and

   b.   subtask elements associated with each subtask, where a subtask element is the smallest logically and reasonably definable unit of behaviour required in completing a subtask (eg, apply counter-clockwise torque to the lug nuts with a lug wrench).

6.2.3.2   All subtasks and task element descriptions specified at clause 6.2.3.1 shall consist of:

   a.   an action verb, which states what is to be accomplished in the task;

   b.   an object, which identifies what is to be acted upon in the task; and

   c.   any qualifying phrases, which are intended to distinguish the task from related or similar activities, limit and define the scope of the task, and clearly communicate the nature of the task.

6.2.4   Option 4 - Task Personnel Competency Report

6.2.4.1   When this DID is invoked under the Contract to define a Task Personnel Competency Report for a SSCC, the data item shall identify:

   a.   the skills and experience levels required to perform each task and subtask associated with the SSCC; and

   b.   any differences between the skills and experience required and the skills and experience within the target population profile for the intended workforce.

6.2.5   Logistic Support Analysis Record

6.2.5.1   Where an LSAR is to be updated with task information related to a report described in this DID, and that LSAR data is concurrently accessible to the Commonwealth, then the delivered report should minimise duplication with the LSAR data and refer to the applicable LSAR data release as part of the report.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ILS-FAC-FRAR-V5.3

2.   TITLE: FACILITIES REQUIREMENTS ANALYSIS REPORT

3.   DESCRIPTION AND INTENDED USE

3.1   The Facilities Requirements Analysis Report (FRAR) describes the detailed requirements for all of the Commonwealth Facilities, including recommended works requirements, to enable the Mission System and the Support System to be operated and supported over the Life-of-Type of the Mission System. The Commonwealth and the Contractor use the FRAR as the basis for a common understanding of the requirements for Commonwealth Facilities.

3.2   The Contractor uses the FRAR to document the outcomes of its Facilities requirements analyses for new Commonwealth Facilities to be constructed by either the Commonwealth or the Contractor, and/or existing Commonwealth Facilities to be modified by either the Commonwealth or the Contractor (or both).

3.3   The Commonwealth uses the FRAR to:

   a.   assist with the evaluation of the Contractor's designs for both the Mission System and the Support System;

   b.   understand, evaluate and monitor the Contractor's scope of work under the Contract with respect to Facilities;

   c.   identify and understand the Commonwealth's scope of work with respect to Facilities; and

   d.   finalise the scope and scheduling of the respective development and implementation activities for new or to-be-modified Commonwealth Facilities for which either the Contractor, the Commonwealth or both parties have responsibility.

4.   INTER-RELATIONSHIPS

4.1   The FRAR is subordinate to the following data items, where these data items are required under the Contract:

   a.   Integrated Support Plan (ISP); and

   b.   Site Installation Plan (SIP).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

      Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   When the Contract has specified delivery of another data item that contains aspects of the required information, the FRAR should summarise these aspects and refer to the other data item.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   General

6.2.1.1   The FRAR shall provide sufficient detail to enable the Commonwealth to:

a.   be assured that, where Commonwealth Facilities are mandated under the Contract, those Facilities will be suitable for the Contractor's proposals for the new Mission System and Support System;

b.   understand the full scope of the requirements for Commonwealth Facilities, for the new Mission System and Support System; and

c.   translate the FRAR into construction bid packages that will build or modify Facilities to be compatible with the new Mission System and the Support System.

6.2.1.2   The FRAR shall include a full description of the required Facilities including recommendations, accompanied by drawings, specifications, and sketch plans, for new Commonwealth Facilities and for existing Commonwealth Facilities to be modified.

6.2.2   Requirements Analysis

6.2.2.1   The FRAR shall provide details of the analysis process used to develop the FRAR (highlighting any differences from the analysis described in the Approved ISP), including:

a.   a description of the methodology employed;

b.   identification of the data sources used;

c.   identification of the key assumptions on which the analysis is based; and

d.   sample calculations (if relevant).

6.2.2.2   The analysis shall include Facilities requirements specifically pertaining to existing or planned Commonwealth Facilities located at all operational and logistic support locations.

6.2.3   Facilities Details

6.2.3.1   For each of the Facilities requirements identified, the FRAR shall include specific assessments, and justification for those assessments, of the:

a.   space / room requirements;

b.   equipment and Personnel needed to operate and support the Mission System and Support System, as applicable, in the applicable Facility;

c.   installation requirements for items of equipment that are part of the Mission System and Support System, as applicable (cross-referencing the SIP, if available);

d.   intended use of the Defence Wide Area Network (WAN) or of leased data links, in terms of bandwidth and peak capacity requirements;

e.   power requirements, including anticipated peak loads, reasonable allowances for growth, earthing, and equipment susceptibility to spikes in the power supply;

f.   air conditioning requirements considering working conditions, ventilation and heat generation from plant;

g.   equipment-specific cooling requirements (eg, water cooling), which are in addition to the air conditioning requirements and which are recommended to be provided as part of the Facilities;

h.   lighting requirements;

i.   floor loading requirements;

j.   floor levelling requirements where there are, for example, process-specific requirements for particular tolerances in the floor levels;

k.   Work Health and Safety issues and safety risk management provisions;

l.   facilities for achieving a suitable work environment, as may be described by a code of practice approved under section 274 of the *Work Health and Safety Act 2011* (Cth), *Managing the Work Environment and Facilities*;

m.   noise insulation requirements;

n.   mechanical constraints, if any;

o.   facility-specific fire detection / suppression systems;

p.   access requirements for equipment (eg, vehicle loading docks) and personnel;

q.   personnel access control and physical security requirements;

r.   emanations security and cyber security requirements;

s.   Electromagnetic Interference (EMI) and Electromagnetic Compatibility (EMC);

t.   storage requirements, including shelving / racking recommendations;

u.   dust control / clean room requirements;

v.   compressed air requirements;

w.   water supply and extraction / sewerage requirements;

x.   trade waste generation and extraction removal requirements; and

y.   recommendations for energy and water efficiency.

6.2.3.2   For each of the Facilities identified in the Contract that will be modified for, or provided by, the Commonwealth, the FRAR shall include the Contractor's schedule recommendations with respect to the required works.

6.2.4   Contractor Facilities required for in-service support

6.2.4.1   If the SOW requires the Contractor to address Facilities for the Contractor and/or related parties, in order to provide in-service support, the FRAR shall:

a.   identify and briefly describe the significant Facilities (ie, Facilities that must be built or specifically modified to enable in-service support);

b.   summarise how these Facilities were analysed; and

c.   identify the key points that make these Facilities significant (eg, in terms of size, cost or specialised plant or equipment that needed to be included in the Facility).

6.3   Annexes

6.3.1   Annexes shall be used, as required, to record requirements and document plans for individual Facilities.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ILS-MGT-ISP-V5.3

2.   TITLE: INTEGRATED SUPPORT PLAN

3.   DESCRIPTION AND INTENDED USE

3.1   The Integrated Support Plan (ISP) describes the Contractor's strategy, plans, methodologies and processes for meeting the ILS program requirements of the Contract.

3.2   The Contractor uses the ISP to:

   a.   define, manage and monitor the ILS program;

   b.   ensure that those parties who are undertaking ILS activities understand their responsibilities, the processes to be used, and the time-frames involved; and

   c.   ensure that those parties who are providing data to enable ILS activities to be undertaken understand their responsibilities, the data required and the time-frames for providing that data.

3.3   The Commonwealth uses the ISP to:

   a.   understand the Contractor's approach to meeting the ILS program requirements;

   b.   form the basis for monitoring the Contractor's progress under the ILS program; and

   c.   understand the Contractor's expectations for Commonwealth's involvement in the ILS program.

4.   INTER-RELATIONSHIPS

4.1   The ISP is subordinate to the Project Management Plan (PMP).

4.2   The ISP shall be the single planning and controlling document for all ILS program activities and related efforts, and shall have authority over, and give direction to, any subordinate ILS plans.

4.3   The ISP inter-relates with the following data items, where these data items are required under the Contract:

   a.   Support System Specification (SSSPEC);

   b.   Support System Description (SSDESC);

   c.   Systems Engineering Management Plan (SEMP);

   d.   System Review Plan (SRP);

   e.   Configuration Management Plan (CMP);

   f.   Verification and Validation (V&V) Plan (V&VP);

   g.   the governing plans for the specialty engineering domains identified in the SOW (eg, Growth Plan (GP) and Integrated Reliability, Maintainability and Testability Plan (IRMTP);

   h.   the support-related data items derived from the Master Technical Data Index (MTDI), particularly the Support System Technical Data List (SSTDL);

   i.   all data items associated with the design, development, delivery, V&V and, where applicable, Acceptance of Support Resources and Training, including (for example) the Logistic Support Analysis Record (LSAR), the provisioning lists required under the Contract (eg, the Recommended Spares Provisioning List (RSPL), and the Training data items (eg, Learning Management Packages (LMPs));

   j.   Contractor Transition Plan (CTXP);

   k.   Quality Plan (QP); and

   l.   Contract Master Schedule (CMS).

5.   APPLICABLE DOCUMENTS

5.1   The following document forms a part of this DID to the extent specified herein:

DEF(AUST)1000C	*ADF Packaging*
DEF(AUST)5629C	*Production of Military Technical Manuals*
DEF(AUST)IPS-5630	*Developing S1000D Interactive Electronic Technical Publications (IETPs)*
DEF(AUST)5691	*Logistic Support Analysis*
S1000D™	*International specification for technical publications using a common source database*, Issue 5.0
SADL Guide	*Systems Approach to Defence Learning (SADL) Practitioner Guide*
	ADF Service Training Manual(s), as specified in the Statement of Work
	ADF Service Publication standard(s) for Technical Data, as specified in the Statement of Work

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The ISP shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   When the Contract has specified delivery of another data item that contains aspects of the required information, the ISP should summarise these aspects and refer to the other data item.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   General

6.2.1.1   The ISP shall describe the objectives, scope, constraints, and assumptions associated with the Contractor's ILS program.

6.2.1.2   Risks associated with the Contractor's ILS program, including risks associated with the development and implementation of the Support System shall be documented in the Risk Register; however, the ISP shall describe the risk-management strategies associated with any global risks related to the ILS program.

6.2.2   ILS Program Organisation

6.2.2.1   The ISP shall describe the organisational arrangements for the ILS program, including:

a.   the Contractor's and Approved Subcontractors' organisations and management structures, showing how these arrangements integrate into the higher-level management structures and organisations for the Contract;

b.   the interrelationships and lines of authority between all parties involved in the Contractor's ILS program, including the identification of those parties responsible for the provision of ILS-related data; and

c.   the responsibilities of all parties involved in the Contractor's ILS program, including the identification of the individual who will have managerial responsibility for meeting the ILS requirements of the Contract.

6.2.3   ILS Program Activities

6.2.3.1   General

6.2.3.1.1   The ISP shall describe the Contractor's program for meeting the ILS requirements of the Contract, including:

a. the major activities to be undertaken, when, and by whom, showing the linkages between these activities and the ILS outcomes required;

b. the integration of Subcontractors into the Contractor's ILS program;

c. the hierarchy of ILS program plans, showing the relationships between plans;

d. the processes and procedures to be used to undertake the ILS activities;

e. for any new or modified procedures, an overview of their scope and the responsibilities and timeframes for developing and approving those procedures;

f. the strategy for the use of extant data when undertaking logistics-related analyses and Support System development;

g. the personnel (including categories, numbers and associated skills/competencies) required by the Contractor and Subcontractors to meet the ILS requirements of the Contract, including the proposed sources for obtaining those personnel;

h. the interfaces between the ILS program and the Systems Engineering (SE), Configuration Management (CM), and Verification and Validation (V&V) programs, including the mechanisms for ensuring that ILS-related activities are integrated with these other programs, to ensure that the objectives of the ILS program and other programs are achieved;

i. the proposed interfaces between the Commonwealth and the Contractor, including the role of ILS personnel within the Resident Personnel (RP) team, if applicable;

j. the expectations for Commonwealth input into the Contractor's ILS program; and

k. the provision of any Training required by Commonwealth Personnel to enable them to undertake the review of Contractor analyses results, and any other expected roles identified by the Contractor, including details of the proposed courses.

6.2.3.2   Subcontractor Management

Note: Relevant information may be included in other sections; however, this section should identify how Subcontractor work is integrated into the ILS program.

6.2.3.2.1   The ISP shall:

a. identify the ILS work to be conducted by Subcontractors;

b. outline how Subcontractor activities and products will be integrated into the overall ILS program effort in terms of work activities and end products; and

c. describe how ILS program requirements will be flowed down to Subcontractors and how outputs from the Subcontractors will be validated against those requirements.

6.2.3.3   Standards

6.2.3.3.1   The ISP shall identify the standards (eg, DEF(AUST)5691, *Logistic Support Analysis*) to be used by the Contractor and Subcontractors to undertake the ILS program.

6.2.3.3.2   The ISP shall describe, in annexes to the ISP, the tailoring of the identified standards to meet the ILS program's requirements, for both hardware and software, including:

a. the activities or processes from each standard to be undertaken, including the rationale for including and tailoring or excluding an activity or process;

b. the data required, including from related programs (eg, SE program), to perform the identified analysis activities / processes;

c. the expected outcomes associated with undertaking each of activity or process;

d. how the outcomes relate to the requirements of the Contract and the Contractor's proposed solutions for the Mission System and Support System;

e. how the outcomes will be documented;

f. the tools to be utilised to undertake the each activity or process; and

g. the expected role of the Commonwealth in reviewing the outcomes.

6.2.3.4   Candidate Items

6.2.3.4.1   The ISP shall identify the method for identifying candidate items for analysis, including the hardware and software products for which different analyses apply (eg, those for which Logistic Support Analysis (LSA) and Level of Repair Analysis (LORA)) will be performed.

Note: The candidate items list is expected to be provided through the LSAR and/or Configuration Status Accounting data and should be consistent with related lists, including the Software List.

6.2.3.4.2   The ISP shall identify the candidate items that have been the subject to previous analyses and for which the Contractor expects to only perform a Validation activity.

6.2.3.5   Requirements Analysis

6.2.3.5.1   The ISP shall describe the methodology, processes and tools to be used to analyse and validate the Support System requirements, including consideration or determination of:

a.   missions and the operational and support environments;

b.   functional and performance requirements for development, manufacturing, verification, deployment, operation, support, training and disposal; and

c.   constraints, including any imposed by the existing support infrastructure.

6.2.3.5.2   The ISP shall describe the Contractor's approach to documenting Support System requirements, including in the SSSPEC, when applicable.

6.2.3.6   Support System Logical Solution Representations

Note: 'Logical Solution Representations' include process flow diagrams, organisational charts, decision logic and other functional diagrams.

6.2.3.6.1   When Support System Logical Solution Representations are required to be developed under the Contract, the ISP shall describe:

a.   the types of Logical Solution Representations that will be produced to characterise Support System behaviour;

b.   the approach, methods, procedures, tools, and facilities to be used to develop, document, use, manage and validate the Logical Solution Representations;

c.   the proposed maturity of the Logical Solution Representations during each phase of development of the Support System; and

d.   the proposed involvement of the Commonwealth in validating the Logical Solution Representations of the Support System.

6.2.3.7   Synthesis

6.2.3.7.1   The ISP shall describe the methodology, processes and tools to be used to synthesise the design of the Support System (and the associated Support Resources), including:

a.   the Contractor's approach for ensuring that the Support System minimises Life Cycle Cost while meeting the other requirements of the Contract;

b.   the approach employed to select components and materials in order to meet system requirements, to benefit from standardisation, and to manage obsolescence; and

c.   a description of the processes by which Long Lead-Time Items (LLTIs) and resources that affect the critical path of the program are defined and determined.

6.2.3.8   Implementation of the Support System

6.2.3.8.1   The ISP shall describe the methodology, processes and tools to be used to implement the Support System, cross-referring to ILS sub-program plans and the CTXP, where appropriate.

6.2.3.9   Verification and Validation Planning

6.2.3.9.1   The ISP shall describe the V&V strategy for the Support System and Support System Components.

6.2.3.10   Trade Studies

6.2.3.10.1   The ISP shall describe the Contractor's methodology for conducting ILS-related trade studies, including trade studies relating to Technological Opportunities and Standardisation Opportunities.

6.2.3.10.2   The ISP shall describe:

a.   how and where the information resulting from ILS-related trade studies will be recorded and utilised; and

b.   the expected role of the Commonwealth in providing inputs to and reviewing the outcomes of ILS-related trade studies.

6.2.3.11   ILS Modelling and Simulation Tools

6.2.3.11.1   The ISP shall describe the modelling and simulation tools to be used to meet the ILS requirements of the Contract, including:

a.   the relationship between the ILS modelling and simulation tools and the corresponding ILS program activities being supported by the tool;

b.   the interfaces and any data exchange between each of the ILS modelling and simulation tools and other tools to be used under the Contract (eg, for LCC);

c.   the process for assuring interoperability between the ILS modelling and simulation tools used under the Contract and those used by the Commonwealth; and

d.   for each ILS modelling and simulation tool:

(i)   the scope and level of application;

(ii)   the assumptions underlying the algorithms used, and any constraints involved, in applying the tool;

(iii)   the data and the sources of the data required;

(iv)   the process for collecting and recording input data, including data provided by the Commonwealth;

(v)   the methodology for using the tool to analyse the collected data;

(vi)   how the level of confidence in the data used will be taken into account; and

(vii)   how the level of confidence in the output(s) from the tool will be determined.

6.2.4   ILS Program Data Management

6.2.4.1   Data Sharing

6.2.4.1.1   The ISP shall describe the data management system to be used by the Contractor to collect, document, disseminate, coordinate, control, and share data between activities conducted within the ILS program and between the ILS program and other programs.

6.2.4.2   Logistic Support Analysis Record

6.2.4.2.1   Where the Contract requires a Logistic Support Analysis Record (LSAR), the ISP shall:

a.   describe the LSA control numbering system to be used;

b.   identify the LSAR tables and data elements to be used to document, disseminate and control LSA data;

c.   identify the positions in the ILS program organisation responsible for compiling and maintaining the LSAR and the procedures for compiling and maintaining the LSAR; and

d.   describe the maturity of the LSAR (by LSAR Table and depth of information to be provided in each LSAR Table) that will exist at each of the applicable milestones (eg, Mandated System Reviews).

6.2.4.3   Data from External Sources

6.2.4.3.1   The ISP shall outline the information that the Contractor needs to obtain from organisations external to the Contractor's organisation (eg, Subcontractors, the Commonwealth, overseas agencies, and other company divisions) to conduct the ILS program. External

organisations, for the purpose of this requirement, include organisations external to the Contractor's organisation and organisations internal to the Contractor that are not directly involved with the Contract.

6.2.4.3.2   The ISP shall identify whether arrangements already exist for obtaining this information or arrangements need to be established to obtain the information. The ISP shall also identify any risks associated with these arrangements.

6.2.4.3.3   With respect to the use of existing Technical Data to be used in analysis (eg, to perform a Failure Mode Effects and Criticality Analysis), the ISP shall describe:

a.   how that Technical Data will be evaluated and updated, as required, for the configuration, role, environment and target users of the Materiel System; and

b.   how the Contractor will identify, for the purposes of Commonwealth review, the Technical Data content that is reused, modified and new.

6.2.4.4   **Configuration Management**

6.2.4.4.1   The ISP shall describe the approach planned to establish and maintain Configuration Control of Support Resources.

6.2.4.4.2   The ISP shall include a description of the approach planned to establish and maintain control of Support System interfaces, including through the conduct of Interface Control Working Groups (ICWGs).

6.2.5   **Progress and System Reviews**

6.2.5.1   The ISP shall outline the procedures for conducting progress reviews for the purposes of considering the progress of the ILS program and related outputs, including sub-programs for the design, development and implementation of Support Resources.

6.2.5.2   The ISP shall describe how ILS program outputs are integrated into System Reviews, cross-referring to other plans when appropriate, including the SRP when required under the Contract.

6.2.5.3   If an SRP is not a requirement under the Contract, the ISP shall:

a.   describe the Contractor's methodology and processes to establish and conduct Mandated System Reviews and Internal System Reviews;

b.   for each ILS System Review, identify the proposed venue, and list the organisations and individuals involved and their specific review responsibilities;

c.   define entry, exit and checklist items for each ILS Mandated System Review, as defined by the Contract, incorporating standard checklists (ie, MSR-CHECKLIST-XXX) for these reviews, supplemented by the Contractor's internal processes; and

d.   detail, for each ILS Internal System Review:

(i)   review objectives,

(ii)   pre-requisites for conducting the review (ie, entry criteria),

(iii)   items to be addressed at the review, and

(iv)   essential review completion criteria (ie, exit criteria).

6.2.6   **ILS Program Schedule**

6.2.6.1   The ISP shall include a summary of the ILS program schedule, as an annex to the ISP.

6.2.6.2   The full ILS program schedule shall be included in the CMS.

6.2.7   **ILS Sub-Programs**

6.2.7.1   **General**

6.2.7.1.1   The ISP shall describe the Contractor's program of activities associated with, as applicable, the identification, design, development, acquisition, installation, set-to-work, commissioning and V&V, as applicable, of:

a.   Spares and Packaging (eg, special-to-type Packaging);

b.   Technical Data;

    c.   Training (including Training Equipment and Training Materials);

    d.   Support and Test Equipment (S&TE);

    e.   Facilities; and

    f.   software support.

6.2.7.2   **General Support Resource Requirements**

6.2.7.2.1   The ISP shall, for each category of Support Resources required under the Contract, detail the strategy, methodology, processes, tools and activities for:

    a.   performing an item / product range and quantity analyses, and to identify the locations / echelons of support (including Commonwealth locations and support contractors) where Support Resources would be located;

    b.   undertaking standardisation and offsetting of identified Support Resources with corresponding Support Resources already in service with the Commonwealth;

    c.   confirming that the proposed Spares, Packaging, S&TE, and Training Equipment are able to be accommodated, in terms of space, installation and required services, at Defence Facilities or within the Mission System (eg, on-board as applicable);

    d.   categorising each type of Support Resource based on its intended purpose, origin / supplier, management approach or other applicable criteria;

    e.   provisioning of the Support Resources, including LLTIs and Life-of-Type (LOT) procurements;

    f.   the compilation and management of Codification Data (to be provided in accordance with DID-ILS-TDATA-CDATA);

    g.   providing and tracking of certificates of conformance, where applicable;

    h.   the packaging, delivery, installation, commissioning and testing of Support Resources (as applicable);

    i.   identification and labelling of Support Resources (eg, 'Unique ID' (UID) and bar-coding), including references to applicable standards;

    j.   identification and management of security requirements associated with the definition, procurement, delivery and, if applicable, installation and Certification of Support Resources, including in relation to physical security, Emanation Security (EMSEC), Information and Communications Technology (ICT) security, cyber security, and supply chain security;

    k.   identification and management of releasability issues (eg, export controls);

    l.   identification and management of safety requirements, including Problematic Substances within the Support Resources;

    m.   identification and management of special transportation, handling and storage requirements for the Support Resources;

    n.   preparing for and enabling the Acceptance of Support Resources;

    o.   validation of provisioning lists for recommended Support Resources;

    p.   V&V of the Support Resources;

    q.   the provision of any training associated with the delivery and/or set-up of the Support Resources; and

    r.   the identification of configuration documentation for each item of the Support Resources.

6.2.7.3   **Technical Data**

Note: When a separate TDP is required by the Contract, the ISP should only include a summary.

6.2.7.3.1   The ISP shall describe any issues or implications for the development and delivery of, or access to, Technical Data required for the Support System, which arise from restrictions on Technical Data and Software rights, export licences, Technical Assistance Agreements, security issues, or other.

6.2.7.3.2   With respect to the use of existing Technical Data, which is to be delivered as a whole or incorporated into other manuals and other publications that are to be delivered, the ISP shall describe:

    a.   how that Technical Data will be evaluated and updated, as required, for the configuration, role, environment and target users of the Materiel System; and

    b.   how the Contractor will identify, for the purposes of Commonwealth review, the Technical Data content that is reused, modified and new.

6.2.7.3.3   In addition to clause 6.2.7.2, the ISP shall describe:

    a.   the Contractor's strategy, methodology and processes for the identification, development and delivery of Technical Data, including the procedures to identify required amendments to existing Commonwealth publications and other Technical Data;

    b.   the software tools to be applied to the generation and interpretation (authoring and viewing) of Technical Data;

    c.   the procedures, by category of Technical Data, for the receipt, review, Configuration Control, amendment, production and delivery of all Technical Data for the Mission System and Support System;

    d.   the procedures for the management and update of the MTDI, including the SSTDL;

    e.   the standards, by Technical Data category, for the preparation of Technical Data;

    f.   the strategy, methodology and processes for validating the MTDI, including the SSTDL;

    g.   the procedures to identify the amendments required to existing Commonwealth publications and the management of amendment incorporation;

    h.   the strategy, methodology and processes to meet any associated regulatory / assurance requirements as they relate to Technical Data;

Note: Terms 'validate' and 'verify' in the following subclause are as used in DEF(AUST)5629C and DEF(AUST)IPS-5630, and do not apply to other parts of the Contract.

    i.   the strategy, methodology and processes for the Contractor to validate Technical Data, including an indicative schedule and standards to be used; and

    j.   the proposed strategy and methodology for the Contractor to assist the Commonwealth in verifying Technical Data.

Note: 'Business Rules' in the following clause has the meaning given in DEF(AUST)IPS-5630.

6.2.7.3.4   If S1000D Technical Data is applicable to the Contract, the ISP shall, for Technical Data that is produced as Common Source Database (CSDB) Objects in accordance with DEF(AUST)IPS-5630 and S1000D™:

    a.   include (as an annex) a Business Rules Index that:

        (i)   includes the (common) Defence Business Rules specified in DEF(AUST)IPS-5630 and any additional or modified Business Rules specified at Annex A to the SOW or in the ADF Service Publication standard(s) identified in the SOW;

Note: Agreement to the Contractor-proposed BRDP is provided through Approval of the ISP.

        (ii)   specifies the Business Rules Decision Points (BRDP) proposed by the Contractor for those BRDP designated in Annex B to DEF(AUST)IPS-5630 as "Contractor to propose, Commonwealth to agree"; and

        (iii)   if applicable, identifies the Business Rules applicable to the update of legacy publications produced in previous versions of S1000D (ie, prior to issue 5);

    b.   describe the methodology and processes to validate that the structure and set of the eXtensible Markup Language (XML) accords with the required Business Rules; and

    c.   describe the method of data exchange and transfer, including data transfer points, in accordance with DEF(AUST)IPS-5630, or as otherwise agreed by the Commonwealth.

6.2.7.4   Training

6.2.7.4.1   The ISP shall summarise the objectives, scope, constraints, global risks and assumptions for the Contractor's learning development and Training systems implementation activities.

6.2.7.4.2   The ISP shall list the positions and personnel, or groups of personnel, involved in the learning development program, the delivery of the Training system solutions, and the implementation of any Training courses delivered under the Contract. This list shall contain the following information:

a.   position title or role;

b.   names of the personnel (if available) in management / team leader roles;

c.   formal qualifications; and

d.   as applicable, teaching experience and related technical / subject matter experience.

6.2.7.4.3   In addition to clause 6.2.7.2, the ISP shall describe the Contractor's strategy, methodology, standards and processes (highlighting any differences from the SADL and any ADF Service Training manuals specified in the SOW) for undertaking and managing, as applicable:

a.   the analysis of performance needs and identification of recommended Training solutions (intervention solutions) including:

Note: Refer to the Analyse Phase in the SADL for a description of a full-scale analysis process.

(i)   the identification of job / task requirements and the specification of performance needs for operators and support Personnel;

(ii)   analysis of the gap between baseline competencies (including skills, knowledge, attitudes and behaviours) and the identified performance needs;

(iii)   the identification of learning / Training methods to satisfy the performance needs, and the risk and feasibility analyses for their implementation; and

(iv)   the identification and evaluation of existing LMPs, and the need for new or modified LMPs, leading to the recommendation of Training requirements (as required to be delivered in the PNAR);

b.   the reuse, update, or design and development of the LMPs, including:

(i)   learning management information;

(ii)   the course curricula, including the derivation / review of required learning outcomes and course design;

(iii)   the identification and evaluation of major resource requirements, including personnel and Training Equipment requirements; and

(iv)   the development and/or update of Training Materials (including learning and assessment materials); and

c.   when applicable, accreditation against nationally recognised Units of Competency.

6.2.7.4.4   The ISP shall describe any additional standards, methodologies and processes to be used for the development of deliverables under the Contract, including:

a.   the Training Requirements Specification (TRS);

b.   the Performance Needs Analysis Report (PNAR);

c.   draft Learning Management Packages (LMPs);

d.   complete (final) LMPs, including Training Materials;

e.   the Training Materials List (TML);

f.   the Training Equipment List (TEL); and

g.   Training course evaluation reporting requirements.

6.2.7.4.5   The ISP shall describe the strategy, methodology and processes to be used for the implementation and evaluation of the Training and Training Support solution, including (as applicable):

a. the development and implementation of Training Equipment;

b. Training courses to be delivered under the Contract, including the conduct of any trial courses; and

c. Training courses evaluation requirements, including in relation to the V&V program and the Acceptance of Training and Training Support solutions under the Contract.

6.2.7.5   S&TE and Training Equipment

6.2.7.5.1 In addition to clause 6.2.7.2, the ISP shall identify the significant (eg, technically complex) items of S&TE and Training Equipment, in a category matrix that identifies items as:

a. **NDI / COTS**: when the item will be provided as a Supply without modification;

b. **Developmental – minor**: when the item is subject to a modification action to make it suitable as a Supply but which does not change the item's Functional Baseline (the Product Baseline may be changed by the modification); or

c. **Developmental – major**: when the item is developed specifically for the Contract or subject to modification action to make it suitable as a Supply, which involves a change to the item's Functional Baseline.

6.2.7.5.2 For item categories other than NDI / COTS under clause 6.2.7.5.1, the ISP shall detail the Contractor's methodology, processes and procedures for:

a. managing the engineering effort for the design, development and/or modification;

b. the preparation of product specifications;

c. identifying V&V requirements including test plans, procedures and Commonwealth involvement if applicable; and

d. identifying the Support Resources needed to support the items of S&TE and/or Training Equipment.

6.2.7.5.3 Where the development of an item of S&TE or Training Equipment has additional or specific requirements that differ from the processes and procedures described in response to clause 6.2.7.5.2 (eg, a specific subcontract is required), the ISP shall describe those unique requirements and how they will be managed.

6.2.7.6   Facilities

6.2.7.6.1 In addition to clause 6.2.7.2, the ISP shall detail the Contractor's strategy, methodology, and processes for:

a. analysing the requirements for Facilities, including all Facilities required for:

(i)   the operation and support of the Mission System;

(ii) the management, operation and support of the Support System; and

(iii) the conduct and support of all required Training;

b. confirming the suitability of the existing Commonwealth Facilities for the new Materiel System; and

c. if required under the Contract, undertaking a facilities requirements analysis and documenting the outcomes in the Facilities Requirements Analysis Report (FRAR).

6.2.7.6.2 The ISP shall detail the applicable design standards for any Facilities to be built or modified, by the Contractor or the Commonwealth, including specific requirements for:

a. security (including physical security, EMSEC, ICT security, and cyber security);

b. Work Health and Safety; and

c. Environmental Outcomes.

6.2.8   ILS Program Traceability Matrix

6.2.8.1 The ISP shall include a traceability matrix, showing how the ILS requirements of the Contract will be accomplished by the Contractor's ILS program.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ILS-PER-PRRL-V5.3

2.   TITLE: PERSONNEL RESOURCE REQUIREMENTS LIST

3.   DESCRIPTION AND INTENDED USE

3.1   The Personnel Resource Requirements List (PRRL) documents the types and quantities of Personnel required to perform the functions associated with each of the Support System Constituent Capabilities.

3.2   The Contractor uses the PRRL to:

    a.   document the outcomes of its Personnel requirements analysis conducted in accordance with the Approved ISP; and

    b.   advise the Commonwealth of the recommended types and quantities of Personnel, including (where applicable) security clearance requirements.

3.3   The Commonwealth uses the PRRL to:

    a.   understand and evaluate the Contractor's approach to meeting the requirements of the Contract and, if applicable, the Contract (Support);

    b.   assist with the evaluation of the Support System as it evolves under the Contract;

    c.   assist with monitoring the progress of the Contractor's developmental activities under the Contract; and

    d.   enable the Commonwealth to undertake Independent Verification and Validation (IV&V) of the Contractor's PRRL outcomes.

4.   INTER-RELATIONSHIPS

4.1   The PRRL is subordinate to the Integrated Support Plan (ISP).

4.2   The PRRL inter-relates with the following data items, where these data items are required under the Contract:

    a.   Task Analysis Report (TAR);

    b.   Logistic Support Analysis Record (LSAR);

    c.   Level Of Repair Analysis Report (LORAR);

    d.   Performance Needs Analysis Report (PNAR); and

    e.   Life Cycle Cost Report and Model (LCCRM).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

    Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   This data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   Personnel Resource Requirements

6.2.1.1   The PRRL shall identify, for each Support System Constituent Capability, the optimised results and recommendations for the types and quantities of Personnel required as:

a.   Commonwealth Personnel, and

b.   Contractor (Support) and Subcontractor (Support) Personnel.

6.2.1.2   The PRRL shall identify whether or not any identified type of Commonwealth Personnel (by skill) is available, or could not reasonably be made available through the application of suitable Training to be provided under the Contract

6.2.1.3   The PRRL shall identify the Personnel required to meet the Australian Industry Capability requirements if defined in any accompanying Contract (Support).

6.2.2   Validation Report

6.2.2.1   The PRRL shall include a Validation Report, as an annex, which shall describe the analysis processes undertaken to define the optimal types and quantities of Personnel required to perform all operating and support functions associated with the Mission System and the Support System.

6.2.2.2   The Validation Report shall include:

a.   a description of the method and model(s) used, including any organisational model(s), and consideration of the following aspects of identified jobs and duties:

(i)   nature of the job or duty (eg, uninterruptible, non-continuous, safety-critical, mission-critical, shift-based, etc);

(ii)   frequency of performance;

(iii)   level of supervision;

(iv)   responsibilities;

(v)   performance conditions;

(vi)   performance standards;

(vii)   security clearance requirements;

(viii)   regulatory requirements; and

(ix)   consequences of inadequate performance;

b.   identification of the data sources including, where applicable, cross-references to the TAR and PNAR, as applicable;

c.   identification of the key assumptions on which the analysis is based;

d.   calculations and sensitivity analyses for a sample of Personnel (to include each of the categories defined in clause 6.2.2.1) to support the recommendations; and

e.   justification for the recommended types and quantities of Personnel for operation and support of the Mission System and Support System.

6.3   Annex

6.3.1   Data justifying the Personnel listed in the PRRL, including the Validation Report, shall be provided as an annex to the PRRL.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ILS-S&TE-S&TEPL-V5.3

2.   TITLE: SUPPORT AND TEST EQUIPMENT PROVISIONING LIST

3.   DESCRIPTION AND INTENDED USE

3.1   The Support and Test Equipment (S&TE) Provisioning List (S&TEPL) documents the range and quantity of S&TE to be procured or developed and, when applicable, delivered to the Commonwealth. The S&TEPL identifies the general-purpose and special-purpose S&TE required to operate and support the Mission System and Support System Components throughout the Life-of-Type (LOT) of the Mission System. The S&TEPL also identifies the S&TE that needs to be installed in Commonwealth Facilities.

3.2   The Contractor uses the S&TEPL to:

   a.   document the outcomes of its S&TE requirements analysis; and

   b.   inform the Commonwealth of the set of S&TE required to enable the in-service operation and support of the Materiel System.

3.3   The Commonwealth uses the S&TEPL to:

   a.   understand the full scope of S&TE required to operate and support the Materiel System when in-service;

   b.   understand, evaluate and monitor the Contractor's scope of work with respect to the development and installation of S&TE; and

   c.   identify and understand the scope of S&TE to be procured by the Commonwealth under the Contract and/or from other sources.

4.   INTER-RELATIONSHIPS

4.1   The S&TEPL is subordinate to the following data items, where these data items are required under the Contract:

   a.   Integrated Support Plan (ISP).

4.2   The S&TEPL inter-relates with the following data items, where these data items are required under the Contract:

   a.   Life Cycle Cost Report and Model (LCCRM);

   b.   Support System Technical Data List (SSTDL);

   c.   Supply Support Development Plan (SSDP);

   d.   Software Support Plan (SWSP);

   e.   Materiel System Security Management Plan (MSSMP);

   f.   Task Analysis Report (TAR);

   g.   Training Equipment List (TEL);

   h.   Recommended Spares Provisioning List (RSPL); and

   i.   Verification and Validation Plan (V&VP).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

      Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   Analysis of S&TE Requirements

6.2.1.1 The S&TEPL shall summarise the analyses undertaken to produce the S&TE list required by clause 6.2.2 (particularly highlighting any differences from the analysis process described in the Approved ISP), including:

   a.   a description of the methodologies used to:

      (i)   identify the S&TE required to provide support for operations and each level of maintenance and support for the Mission System and Support System Components (including cross-references to the TAR, when applicable);

      (ii)   optimise the range and quantities of S&TE required, including by the standardisation and offsetting of the identified S&TE with S&TE that is already in service with the Commonwealth; and

      (iii) justify the range and quantities of S&TE to be procured;

   b.   identification of the data sources used;

   c.   identification of the key assumptions on which the analysis was based; and

   d.   calculations and sensitivity analyses for a sample of S&TE to support the recommendations.

6.2.2   S&TE List

6.2.2.1 The S&TEPL shall include:

   a.   all S&TE required by the Commonwealth; and

   b.   all special purpose (including special-to-type) S&TE required for in-service contractor support, including support to be provided by the Contractor (Support) and Subcontractors (Support).

6.2.2.2 The S&TEPL shall identify the S&TE required, as applicable:

   a.   to enable or facilitate operation of the Mission System;

   b.   for in-service engineering, Maintenance and supply activities for the Materiel System; and

   c.   to support Training Equipment.

6.2.2.3 The S&TEPL shall separately identify the range and quantity of:

   a.   Insurance S&TE; and

   b.   S&TE to support planned modifications and upgrades of the Mission System and Support System Components throughout the LOT.

6.2.2.4 The S&TEPL shall, for each item of S&TE recommended, include (using sub-reports and cross-references as appropriate):

   a.   a specific record for each unique item of S&TE (ie, each line item);

   b.   identification details, including:

      (i)   item name / provisioning nomenclature, including the model or type;

      (ii)   NATO Stock Number (NSN), if known;

      (iii)   manufacturer's name and NATO Commercial and Government Entity (NCAGE) code;

      (iv)   manufacturer's reference number / part number;

      (v)   manufacturer's address; and

      (vi)   LSA Control Number, if applicable;

c.   details describing the nature and use of the item of S&TE, including:

      (i)   if the S&TE is general purpose or special purpose (including special-to-type);

      (ii)   whether or not the S&TE has implications for operational effectiveness, safety and/or security (ie, where the risk pertaining to each of these areas is assessed as medium or higher as determined in accordance with the Approved risk-management processes for each area);

      (iii)   when a LSAR is required in the SOW, the LSA Control Numbers, End Item Acronym Codes and Useable on Codes, or the NCAGE code and reference numbers, for the equipment on which the S&TE may be used; and

      (iv)   identification details of related Software, if applicable; and

d.   whether or not the S&TE is to be installed in Commonwealth Facilities, including details of installation requirements, the Commonwealth Facilities where the S&TE is to be installed, and the schedule;

e.   the recommended quantity of S&TE by organisation and location, including Commonwealth, Contractor (Support), and Subcontractor (Support) locations (noting that the Contract may allow for the Commonwealth to elect to own specific items of S&TE that would be used by support contractors);

f.   provisioning information, including:

      (i)   a unit price, which shall be the Contractor's most favoured customer price for the delivery of that item of S&TE (with this data to be linked to cost elements provided in the LCCRM);

      (ii)   source currency, for the unit price for the line item;

      (iii)   the recommended total quantity to be procured by the Commonwealth;

      (iv)   customs duties and other government duties, as applicable;

      (v)   a total price for each line item;

      (vi)   the provisioning lead time, and the identification of any Long Lead Time Items;

      (vii)   the delivery location; and

      (viii)   a recommended delivery date;

g.   identification details for related Technical Data, including as applicable:

      (i)   operator manuals;

      (ii)   set-up and pack-up procedures;

      (iii)   Maintenance manuals;

      (iv)   calibration procedures; and

      (v)   Software product information;

h.   cross-references to the applicable S&TE Acceptance Test Procedure (or 'N/A' where Acceptance V&V is not practical / applicable); and

i.   recommendations for any items of S&TE to be procured by the Commonwealth from sources external to the Contract, including for the purposes of standardisation or offsetting with S&TE that is already in the Commonwealth inventory.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ILS-SUP-PACKPL-V5.3

2.   TITLE: PACKAGING PROVISIONING LIST

3.   DESCRIPTION AND INTENDED USE

3.1   The Packaging Provisioning List (PACKPL) documents the range and quantity of Packaging to be procured or developed by the Contractor and, when applicable, delivered to the Commonwealth. Correct packaging ensures the preservation of items and protection against environmentally-induced deterioration, damage, and other forms of degradation during storage, handling, and shipment activities throughout the complete supply chain. The PACKPL identifies the Packaging required to support the Mission System and Support System Components throughout the Life-of-Type (LOT) of the Mission System.

3.2   The Contractor uses the PACKPL to:

a.   document the outcomes of its Packaging requirements analysis, with an emphasis on high-value, re-usable and special-to-type Packaging (ie, as Supplies); and

b.   inform the Commonwealth of the set of Packaging required to enable the in-service support of the Materiel System.

3.3   The Commonwealth uses the PACKPL to:

a.   understand the full scope of Packaging required to support the Materiel System when in-service;

b.   understand, evaluate and monitor the Contractor's scope of work with respect to the development of Packaging; and

c.   identify and understand the scope of Packaging to be procured by the Commonwealth under the Contract and/or from other sources.

4.   INTER-RELATIONSHIPS

4.1   The PACKPL is subordinate to the following data items, where these data items are required under the Contract:

a.   Integrated Support Plan (ISP); and

b.   Supply Support Development Plan (SSDP).

4.2   The PACKPL inter-relates with the following data items, where these data items are required under the Contract:

a.   Recommended Spares Provisioning List (RSPL);

b.   Support and Test Equipment Provisioning List (S&TEPL);

c.   Support System Technical Data List (SSTDL); and

d.   Life Cycle Cost Management Plan (LCCMP).

5.   APPLICABLE DOCUMENTS

5.1   The following document forms a part of this DID to the extent specified herein:

DEF(AUST)1000C   ADF Packaging

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

| | **6.2** | **Specific Content** |

6.2.1   **Analysis of Packaging Requirements**

6.2.1.1   The PACKPL shall summarise the analyses undertaken by the Contractor to produce the Packaging list (highlighting differences from the process described in the Approved SSDP or the Approved ISP, whichever is the governing plan under the Contract), including:

a.   a description of the methodologies used to:

    (i)   identify the Packaging required to provide support for each level of operations, maintenance and support of the Mission System and Support System Components, as applicable;

    (ii)   optimise the range and quantities of Packaging required; and

    (iii)   justify the range and quantities of Packaging to be procured;

b.   identification of the data sources used;

c.   identification of the key assumptions on which the analysis was based; and

d.   calculations and sensitivity analyses for a sample of Packaging, to support the recommendations.

6.2.2   **Packaging List**

6.2.2.1   The PACKPL shall, for each item of Packaging recommended, include (using sub-reports and cross-references as appropriate):

a.   a specific record for each unique item of Packaging (ie, each line item);

b.   identification details, including:

    (i)   item name / provisioning nomenclature, including the model or type;

    (ii)   NATO Stock Number (NSN), if known;

    (iii)   manufacturer's name and NATO Commercial and Government Entity (NCAGE) code, or other supplier code (if NCAGE code is not available); and

    (iv)   manufacturer's reference number / part number;

c.   details describing the use and nature of each item of Packaging, including:

    (i)   unique identification details for the item being packed, including:

        1)   when a LSAR is required in the SOW, the End Item Acronym Code, LSA Control Number and Useable On Code, as applicable; and

        2)   the manufacturer's NCAGE code and reference number; and

    (ii)   references to specific sections for requirements within DEF(AUST)1000C to which the Packaging complies;

d.   provisioning information for each line item, including:

    (i)   a unit price, which shall be the Contractor's most favoured customer price for the delivery of that item of Packaging;

    (ii)   source currency, for the unit price for the line item;

    (iii)   the recommended total quantity to be procured by the Commonwealth;

    (iv)   customs duties and other government duties, as applicable;

    (v)   a total price for each line item;

    (vi)   the provisioning lead time, and the identification of any Long Lead Time Items;

    (vii)   the delivery location; and

    (viii)   a recommended delivery date; and

e.   recommendations for any items of Packaging to be procured by the Commonwealth from sources external to the Contract, including for the purposes of standardisation or offsetting with Packaging that is already in the Commonwealth inventory.

DATA ITEM DESCRIPTION

1.   **DID NUMBER:**   **DID-ILS-SUP-RSPL-V5.3**

2.   **TITLE:**   **RECOMMENDED SPARES PROVISIONING LIST**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The Recommended Spares Provisioning List (RSPL) documents the range and quantity of Spares to be procured or developed and manufactured by the Contractor and, where applicable, delivered to the Commonwealth. The RSPL identifies the Spares required for Defence and Contractors (Support) to support the Mission System and Support System throughout the Life-of-Type (LOT). The RSPL also provides details associated with the development of the Spares-optimisation model, the results of the Spares-optimisation analysis activities, and the executable files for the Spares-optimisation model.

3.2   The Contractor uses the RSPL to:

a.   summarise the outcomes that resulted from implementing the Approved Supply Support Development Plan (SSDP) or Integrated Support Plan (ISP), as applicable, including undertaking Spares-optimisation modelling;

b.   document the Spares-optimisation model and the results of any Spares-optimisation analysis activities undertaken;

c.   advise the Commonwealth of the recommended set of Spares required to enable the in-service support of the Mission System and Support System Components; and

d.   assist with demonstrating to the Commonwealth that the Contractor's design for both the Mission System and the Support System represents a minimum Life Cycle Cost (LCC) solution.

3.3   The Commonwealth uses the RSPL to:

a.   assist with the evaluation of the Contractor's design for the Support System;

b.   understand, evaluate and monitor the Contractor's scope of work under the Contract with respect to Spares-optimisation, procurement and delivery;

c.   understand the range and quantity of Spares to be procured by the Commonwealth under the Contract and/or from other sources; and

d.   enable the Commonwealth to undertake Independent Verification and Validation (IV&V) of the RSPL.

4.   **INTER-RELATIONSHIPS**

4.1   The RSPL is subordinate to the following data items, where these data items are required under the Contract:

a.   Integrated Support Plan (ISP); and

b.   Supply Support Development Plan (SSDP).

4.2   The RSPL inter-relates with the following data items, where these data items are required under the Contract:

a.   Contract Work Breakdown Structure (CWBS);

b.   Life Cycle Cost Management Plan (LCCMP);

c.   Support System Technical Data List (SSTDL);

d.   Support and Test Equipment Provisioning List (S&TEPL);

e.   Training Equipment List (TEL);

f.   Software Support Plan (SWSP);

g.   Verification and Validation Plan (V&VP); and

h.   Logistic Support Analysis Record (LSAR).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   General Requirements

6.2.1.1   The RSPL shall provide sufficient detail to enable the Commonwealth to understand:

a.   the Spares-optimisation model(s) developed by the Contractor, and

b.   the Spares-optimisation analysis activities undertaken by the Contractor.

6.2.2   Unless otherwise specified in the Contract, the RSPL shall address Spares requirements for:

a.   the Commonwealth; and

b.   the Contractor (Support) and Subcontractors (Support).

6.2.3   Spares-optimisation Model Development

6.2.3.1   The RSPL shall describe the Spares-optimisation model(s) that has been developed by the Contractor in accordance with its Approved SSDP or Approved ISP, whichever is the governing plan under the Contract, including:

a.   definitions of all terms, acronyms, and model parameters used;

b.   any assumptions underpinning, or limitations with, the Spares-optimisation models, including:

(i)   the scope of the Mission System that has been modelled, including the indenture level of the physical build structure for the Mission System;

(ii)   the modelling of the operational concepts and Rate of Effort (ROE) for the Mission System (as documented in the Operational Concept Document (OCD)); and

(iii)   the modelling of the Support System (including Commonwealth, Contractor (Support) and Subcontractor (Support) elements), including any departures from the Support System Functional Baseline and any shortfalls with respect to Support System Components;

c.   any departures from the planned data sources;

d.   any departures from the build structure of, or any of the assumptions underpinning:

(i)   the Contract Work Breakdown Structure (CWBS);

(ii)   the Logistic Support Analysis Record (LSAR);

(iii)   the Life Cycle Cost (LCC) model(s); and

(iv)   any other models utilised by the Contractor to model the Mission System and/or the Support System (eg, Level Of Repair Analysis model); and

e.   the input data used to build the Spares-optimisation model(s), including:

(i)   the source of the data,

(ii)   the date that the data was first generated,

(iii)   if the data is an estimate, the nature of the estimate; and

(iv)   the justification for the use of the data. Examples of the data that should be justified include Turn-Around Time (TAT) data, Administration and Logistics Delay Time (ALDT) data, and reliability and maintainability data.

6.2.4   Spares-optimisation Analysis Activities and Outcomes

6.2.4.1   The RSPL shall describe the Spares-optimisation analysis activities that have been undertaken by the Contractor.

6.2.4.2   The RSPL shall describe the sensitivity analyses conducted and results obtained, including results obtained to quantify the impact of varying:

a.   reliability and maintainability values;

b.   operational parameters, such as monthly rate of effort; and

c.   ALDT.

6.2.4.3   The RSPL shall describe the trade-off analyses conducted and results obtained.

6.2.4.4   The RSPL shall describe the analysis activities and outcomes obtained from conducting:

a.   steady-state Spares-optimisation modelling; and

b.   endurance / Contingency Spares-optimisation modelling.

6.2.4.5   The RSPL shall describe the approach adopted by the Contractor to ensure that the Contractor's Spares recommendation minimises LCC, while still satisfying the Mission System and Support System Functional Baselines.

6.2.5   Spares-optimisation Model

6.2.5.1   The RSPL shall include the data files for the Spares-optimisation model(s) in a form that does not require the Commonwealth to separately key the data into the Spares-optimisation model(s).

6.2.5.2   Where the Spares-optimisation modelling tool or software used by the Contractor is not held by the Commonwealth, the RSPL shall include:

a.   executable input files for the Spares-optimisation model; and

b.   sufficient details of the Spares-optimisation modelling tool or software to enable the Commonwealth to undertake IV&V of the Spares-optimisation model.

6.2.6   Spares Recommendation

6.2.6.1   The RSPL shall provide the following information (using sub-reports and cross-references as appropriate) for the recommended Spares:

a.   a specific record for each unique type of Spare (ie, each line item);

b.   identification details, including:

(i)   item name / provisioning nomenclature, including the model or type;

(ii)   NATO Stock Number (NSN), if known, or if the Spares require codification;

(iii)   manufacturer's name and NATO Commercial and Government Entity (NCAGE) code;

(iv)   manufacturer's reference number / part number; and

(v)   manufacturer's address;

c.   details describing the nature and use of each line item, including:

(i)   Work Breakdown Structure (WBS) identification, Functional Group Code (FGC), or allocated LSA Control Number (LCN), where applicable;

(ii)   when a LSAR is required in the SOW, the End Item Acronym Code and Useable on Code for each applicable type or model of the parent system;

(iii)   standards / specifications reference number(s);

(iv)   the nature of the Spare (ie, repairable, consumable);

      (v)   the level(s) of maintenance where the Spare will be required; and

      (vi)   shelf life, for Spares with finite storage lives;

      (vii)   whether the Spares are safety critical components, including an annotation of the criticality and how the items are managed (eg, serial number tracking);

d.   identification of those Spares that require special handling because:

      (i)   of security reasons;

      (ii)   they contain Problematic Substances; and/or

      (iii)   they are fragile or sensitive;

e.   the recommended quantity of Spares by level of maintenance / location, including Commonwealth, Contractor (Support), and Subcontractor (Support) locations (noting that the Contract may allow for the Commonwealth to elect to own specific Spares that would be used by support contractors);

f.   total quantity of Spares that is recommended for procurement by the Commonwealth through the Contract, including subordinate quantities against each of the following:

      (i)   peacetime requirements;

      (ii)   deployment requirements;

      (iii)   Insurance Spares; and

      (iv)   Reserve Stockholding Levels (which may include quantities from the previous two subordinate quantities);

g.   provisioning information for each line item of Spares, including:

      (i)   a unit price, which shall be the Contractor's most favoured customer price for the delivery of that Spare;

      (ii)   source currency, for the unit price for the line item;

      (iii)   customs duties and other government duties, as applicable;

      (iv)   a total price for each line item;

      (v)   the provisioning lead time, and the identification of any Long Lead Time Items;

      (vi)   when applicable, the Economic Order Quantity and the recommended maximum and minimum holding levels at each level of maintenance;

      (vii)   the delivery location; and

      (viii) a recommended delivery date; and

h.   recommendations for Spares to be procured by the Commonwealth from sources external to the Contract, including for the purposes of standardisation or offsetting with Spares that are already in the Commonwealth inventory.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ILS-SUP-SSDP-V5.3

2.   TITLE: SUPPLY SUPPORT DEVELOPMENT PLAN

3.   DESCRIPTION AND INTENDED USE

3.1   The Supply Support Development Plan (SSDP) describes the Contractor's and Approved Subcontractors' plans, methodologies and processes for meeting the supply-support requirements of the Contract, including the assessment, identification, procurement, design and development, installation, introduction into Service, and Verification and Validation (V&V), as applicable, of both Spares and Packaging.

3.2   The Contractor uses the SSDP to:

a.   define, manage and monitor the supply-support program; and

b.   ensure that those parties (including Subcontractors) who are undertaking supply-support-related activities understand their respective responsibilities, the processes to be used, and the time-frames involved.

3.3   The Commonwealth uses the SSDP to:

a.   understand and evaluate the Contractor's approach to meeting the supply-support requirements of the Contract; and

b.   identify and understand the Commonwealth's involvement in the Contractor's supply-support program, including the monitoring of the Contractor's program.

4.   INTER-RELATIONSHIPS

4.1   The SSDP is subordinate to the Integrated Support Plan (ISP).

4.2   The SSDP inter-relates with the following data items, where these data items are required under the Contract:

a.   Support System Specification (SSSPEC);

b.   Support System Description (SSDESC);

c.   Recommended Spare Provisioning List (RSPL);

d.   Packaging Provisioning List (PACKPL);

e.   Recommended Provisioning List (RPL);

f.   Level of Repair Analysis (LORA) Report (LORAR);

g.   Support System Technical Data List (SSTDL); and

h.   Codification Data.

5.   APPLICABLE DOCUMENTS

5.1   The following document forms a part of this DID to the extent specified herein:

DEF(AUST)1000C   *ADF Packaging*

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   **Specific Content**

6.2.1   **General**

6.2.1.1 The SSDP shall describe the objectives, scope, constraints, and assumptions associated with the Contractor's activities to develop the supply-support program. Any risks associated with the Contractor's supply-support program shall be documented in the Risk Register; however, the SSDP shall describe the risk-management strategies associated with any global, supply-support-related risks.

6.2.2   **Supply-Support Program Organisation**

6.2.2.1 If different from that described in the ISP, the SSDP shall describe the Contractor's organisational arrangements for meeting the supply-support requirements of the Contract, including:

a.   the Contractor's and Approved Subcontractor's organisations and management structures, showing how the supply-support organisational and managerial arrangements integrate into the higher-level management structures and organisations;

b.   the interrelationships and lines of authority between all parties involved in the Contractor's supply-support program of activities, including those responsible for the provision of supply-support-related data; and

c.   the responsibilities of all parties involved in the Contractor's supply-support program, including the identification of the individual within the Contractor's organisation who will have managerial responsibility and accountability for meeting the supply-support requirements of the Contract.

6.2.3   **Supply-Support Program Overview**

6.2.3.1 The SSDP shall provide an overview of the Contractor's program for meeting the supply-support requirements of the Contract, including:

a.   the major activities to be undertaken, when, and by whom;

b.   the integration of Subcontractors into the Contractor's supply-support program of activities;

c.   an overview of any Spares-modelling tool(s) that will be used by the Contractor and Approved Subcontractors (including any Spares-optimisation models or tools that will be used in conjunction with, or as a supplement to, any Spares-modelling tool specified in the SOW);

d.   the personnel (including categories, expected numbers (by category) and associated skills/competencies) required by the Contractor and Subcontractors to meet the supply-support requirements of the Contract, including the proposed sources for obtaining those personnel;

e.   the processes and procedures to be employed by the Contractor to undertake the supply-support development activities;

f.   for any new or modified procedures, an overview of the scope of the new or modified procedures and the responsibilities and timeframes for developing and approving these procedures;

g.   any training relating to Spares modelling that the Contractor and Subcontractors need to undertake, including details of proposed training courses, personnel or positions identified to undertake those courses, and timeframes in which the courses will be undertaken;

h.   the provision of any training to Commonwealth personnel in the use of Spares models or tools (other than the Spares-modelling tool specified in the SOW), including details of proposed courses and timeframes for those courses; and

i.   the expectations of the Contractor with respect to the Commonwealth.

6.2.4   Spares Requirements Identification

6.2.4.1   The SSDP shall describe the Contractor's strategy, methodology and processes for identifying the Spares requirements under the Contract, including:

   a.   the suite of Spares-modelling tools that will be used, including the function of each of the tools and the relationships between each of these tools in performing Spares optimisation;

   b.   the program of activities associated with developing the Spares-optimisation model (including cross-references to the Spares-optimisation activities in the Contract Master Schedule (CMS) and in any subordinate schedules);

   c.   the scope of Spares-optimisation model(s) that will be developed, including the indenture level of the physical build structure for the Mission System that will be modelled;

   d.   the processes for incorporating Government Furnished Material (GFM) into the Spares-optimisation model(s);

   e.   the maturity of the model(s), with respect to both the Mission System and the Support System, that will exist at each of the Mandated System Reviews;

   f.   any assumptions that will be used to develop the Spares-optimisation model(s);

   g.   the processes for Validating the Spares-optimisation model(s);

   h.   the processes for ensuring that the Spares-optimisation model(s) is consistent with the information sources utilised, the build structure of, and any assumptions underpinning:

      (i)   the Contract Work Breakdown Structure (CWBS);

      (ii)   the Logistic Support Analysis Record (LSAR);

      (iii)   the Life Cycle Cost (LCC) model(s); and

      (iv)   any other models utilised by the Contractor to model either the Mission System or the Support System (eg, LORA model);

   i.   the processes and procedures for collecting and recording Spares-related data, including how this data will be kept current as the development of both the Mission System and the Support System progresses;

   j.   the identification of any Spares-related data that may have to be provided by the Commonwealth (eg, data for those elements of the Support System provided by the Commonwealth and Spares-related data for GFM), including the timeframe for the delivery of this data; and

   k.   the strategy and methodology for using the Spares-optimisation model(s) to analyse the collected data, including performing sensitivity and trade-off analyses.

6.2.5   Spares Provisioning

6.2.5.1   The SSDP shall describe the Contractor's strategy, methodology, processes, and schedule of activities for undertaking:

   a.   Spares provisioning, including:

      (i)   Long Lead Time Items (LLTIs); and

      (ii)   Life-of-Type (LOT) Spares;

   b.   the compilation and management of Codification Data (noting that this data is recorded in accordance with DID-ILS-TDATA-CDATA);

   c.   providing and tracking of Certificates of Conformance;

   d.   packaging, labelling and delivery of Spares to the Commonwealth;

   e.   labelling of Spares (bar-coding), including referencing applicable standards;

   f.   identification and management of fragile and sensitive equipment;

g.   identification and management of Customs requirements;

h.   identification and management of releasability issues (eg, export controls) and transportation requirements associated with secure (eg, COMSEC) items;

i.   identification of, and delivery of, data associated with Spares that have a shelf life;

j.   identification and management of Problematic Substances associated with Spares, including disposal;

k.   delivery and Acceptance of Spares; and

l.   reporting the progress of the delivery of Spares detailed in either the Approved RSPL or the Approved RPL, whichever is required under the Contract.

6.2.5.2   The SSDP shall provide recommendations for the procurement and management of deployment Spares.

6.2.6   Packaging

6.2.6.1   The SSDP shall describe the Contractor's strategy, methodology, processes, and schedule of activities for:

a.   undertaking the categorisation of all system-deliverable, maintenance-supply and Spares-support items that require Packaging, including consideration of:

(i)   the operational and support requirements for both the Mission System and the Support System;

(ii)   distribution and storage sites;

(iii)   size and weight;

(iv)   mission criticality;

(v)   fragility;

(vi)   mode(s) of transport, including for those items of Supplies that will be deployed;

(vii)   special handling requirements, including for electrostatically-sensitive items, Problematic Substances, explosive ordnance, etc;

(viii)   storage requirements, including for items of Supplies that have a shelf life;

(ix)   security requirements;

(x)   freight classification; and

(xi)   the relevant requirements of DEF(AUST)1000C;

b.   identifying the range and quantity of Packaging required in accordance with the categories identified in clause 6.2.6.1a, including consideration of reusable packaging;

c.   interfacing with the system-safety program for Packaging requirements associated with Problematic Substances and explosive ordnance;

d.   performing validation of the list of Packaging defined in either the PACKPL or the RPL, whichever is required under the Contract;

e.   delivery and Acceptance of Packaging;

f.   identification of Packaging; and

g.   testing of Packaging.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ILS-SW-SWSP-V5.3

2.   TITLE: SOFTWARE SUPPORT PLAN

3.   DESCRIPTION AND INTENDED USE

3.1   The Software Support Plan (SWSP) describes the Support Resources, methods and procedures required to perform life-cycle support of Software, including Software applications and Software Updates, used for the purpose of providing continuing life-cycle support for Software.

3.2   The Contractor uses the SWSP to:

a.   define the management organisation, methodology and tasks necessary to support the deliverable Software, including Software Updates; and

b.   identify the Support Resources (eg, Software tools, skills, servicing and programming equipment) required to perform Software maintenance, including Preventive Maintenance and Corrective Maintenance, and the development of enhancements to the Software throughout its life.

3.3   The Commonwealth uses the SWSP to:

a.   understand the level and complexity of the Software support required; and

b.   assess the Contractor's proposed program for the provision of Software support.

4.   INTER-RELATIONSHIPS

4.1   The SWSP is subordinate to the following data items, where these data items are required under the Contract:

a.   Integrated Support Plan (ISP);

b.   Systems Engineering Management Plan (SEMP);

c.   Software Management Plan (SWMP); and

d.   Contractor Engineering Management Plan (CEMP).

4.2   The SWSP inter-relates with the following data items, where these data items are required under the Contract:

a.   Software List (SWLIST);

b.   Materiel System Security Management Plan (MSSMP);

c.   In-Service Security Management Plan (ISSMP);

d.   Support System Technical Data List (SSTDL) (applicable to acquisition contracts);

e.   Technical Data List (TDL) (applicable to support contracts);

f.   Task Analysis Report (TAR); and

g.   Life Cycle Cost Report and Model (LCCRM).

4.3   The SWSP inter-relates with the Technical Data and Software Rights (TDSR) Schedule and the Security Classification and Categorisation Guide (SCCG) Attachments to the Contract.

5.   APPLICABLE DOCUMENTS

5.1   The following document forms a part of this DID to the extent specified herein:

MIL-HDBK-1467   Acquisition of Software Environments and Support Software

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   General

6.2.1.1   The SWSP shall comply with the content requirements of MIL-HDBK-1467 Appendix B, as tailored by the exceptions and changes identified below.

6.2.1.2   If this DID is being used under an acquisition contract, the SWSP shall address Software support for all deliverable Software associated with the Mission System and the Support System.

6.2.1.3   If this DID is being used under a support contract, the SWSP shall address the management and planning of Software Support Services for Software designated as 'Products Being Supported'.

6.2.2   Tailoring to be applied to MIL-HDBK-1467

6.2.2.1   All references to *Life Cycle Software Engineering Environment User's Guide* shall be read as 'Software Support Plan'.

6.2.2.2   All references to 'guide' shall be read as 'plan'.

6.2.2.3   The SWSP shall include in the 'table or matrix', as required by MIL-HDBK-1467 Appendix B paragraph B.3.3.1.1 (Description of the application software to be supported by the LCSEE), a sufficient level of detail describing the application Software in order to cross-reference the target system's functions and the management requirements to be detailed within the SWSP.

6.2.2.4   The SWSP shall address the requirements of MIL-HDBK-1467 Appendix B paragraph B.3.3.1.5 (limited and restricted rights), for the deliverable Software / Software products to be / being supported, as applicable, and the Software used within the support environment, by including:

          a.   the applicable category of Software rights as defined through clause 5 of the COC (eg, Software product, GFE, or Commercial Software); and

          b.   cross-references to any restrictions applying to the rights to use and sublicense the Software, and related Technical Data (eg, Source Code), as detailed within the Contract or licences, as applicable.

6.2.2.5   The SWSP shall include, for the Software listed in accordance with the requirements of MIL-HDBK-1467 Appendix B paragraph B.3.5.4 (Software structure), cross-references to the SSTDL or TDL (eg, for Source Code, specifications, and Software design documentation), as applicable.

6.2.2.6   The SWSP shall address the requirements of MIL-HDBK-1467 Appendix B paragraph B.3.6.6.2 (security provisions and other restrictions), for both the application Software to be / being supported and Software used within the support environment, in accordance with the SCCG and any Export Approvals, as applicable.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ILS-TDATA-CDATA-V5.3

2.   TITLE: CODIFICATION DATA

3.   DESCRIPTION AND INTENDED USE

3.1   As a sponsored nation in the NATO Codification System (NCS), Australia is required to adhere to the policies and principles as published in the NATO Manual of Codification (ACodP-1). Codification of a Stock Item (refer clause 3.4) involves assessing the essential characteristics of an item in order to discern its unique character and to differentiate it from any other item. NATO Standardisation Agreement (STANAG) 4177 details a standard process for the acquisition of data in support of Codification. This DID details the format, content and preparation instructions for the supply of Codification Data (CDATA), which will be used by the Commonwealth for Codification purposes.

3.2   The Contractor uses this data item to provide CDATA to the Commonwealth.

3.3   The Commonwealth uses this data item to enable it to undertake Codification in order to meet its statutory requirements for asset management and financial reporting obligations pursuant to the *Public Governance, Performance and Accountability Act 2014* (PGPA).

3.4   In this DID, the term Stock Item:

a.   if this DID is being used under an acquisition contract, means an item of Supplies (that is not data or Software, unless specifically required to be codified, or services); and

b.   if this DID is being used under a support contract, has the same meaning as provided in the Glossary.

4.   INTER-RELATIONSHIPS

4.1   The CDATA is subordinate to the following data items, where these data items are required under the Contract:

a.   Integrated Support Plan (ISP);

b.   Support Services Management Plan (SSMP);

c.   Supply Support Development Plan (SSDP);

d.   Supply Support Plan (SSP);

e.   Technical Data Plan (TDP) or Technical Data Management Plan (TDMP) (as applicable); and

f.   Support System Technical Data List (SSTDL) or Technical Data List (TDL) (as applicable).

5.   APPLICABLE DOCUMENTS

5.1   The following document forms a part of this DID to the extent specified herein:

STANAG 4177   *Codification of Items of Supply – Uniform System of Data Acquisition*

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

Note: The reference to the SOW clause for 'Deliverable Data Items' in the following clause is applicable for those Contracts that do not include a Contract Data Requirements List (CDRL).

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the SOW clause for 'Deliverable Data Items' and the CDRL clause entitled 'General Requirements for Data Items'.

6.2   Specific Content

6.2.1   Data for Each Item Not Codified in the NATO Codification System

6.2.1.1   For each proposed Stock Item, which is not codified in the NATO Codification System, the CDATA shall detail the following information:

a.   name and full address of the true manufacturer of the item – a manufacturer is deemed to be that organisation that controls the design specification of the item;

b.   the NATO Commercial and Government Entity Code (NCAGE Code[1]) of the true manufacturer (where this is known);

c.   the reference / part Number assigned to the item by the true manufacturer to uniquely identify the item;

d.   name and full address of the supplier of the item;

e.   the NCAGE Code of the supplier (where this is known);

f.   the supplier's reference / part number for the item;

g.   the name of the item as it appears in the manufacturer's or supplier's documentation;

h.   a proposed NATO group class (if appropriate or known);

i.   a proposed item name (using NCS approved nomenclature if appropriate);

j.   the reference / part number, manufacturer and name of the next higher assembly;

k.   manufacturer's documents that provide a comprehensive description of the item (ie, the design / procurement specification, product or technical data sheet) and that define the characteristics or features required for form, fit and function (noting that, as appropriate, this information includes performance, dimensional, physical, electrical, mechanical, material, finishing and construction characteristics; and, as applicable, this sub-clause might require the provision of design drawings, manuals, tender specifications, design specifications, Safety Data Sheets, and other information);

l.   volumetric information, complementary to the dimensional data required by clause 6.2.1.1k, for:

(i)   unpackaged Stock Items (including length, width, depth, net weight and units of measure);

(ii)   packaged Stock Items (including the quantity of units per pack, the gross length, width, depth, cube and weight per unit pack, units of measure, and unit packs per intermediate container); and

(iii)   if applicable, palletisation (including quantity of intermediate containers per pallet layer, number of layers per pallet, pallet width, depth, height and gross weight); and

m.   a statement as to whether the particular part identified at clause 6.2.1.1c and 6.2.1.1d above is fully item identifying (noting that a part number is fully item identifying where, without any further definition, any item of production bearing that part number has the characteristics defined at clause 6.2.1.1k above).

6.2.2   Data for Each Item Already Codified in the NATO Codification System

6.2.2.1   For each Stock Item, which is already codified in the NATO Codification System, the CDATA shall list the following information:

a.   NATO Stock Number (NSN);

b.   item name;

c.   true manufacturer's name, NCAGE Code and item reference / part number; and

d.   supplier's name, NCAGE Code and item reference / part number.

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[1] Note that the abbreviation NCAGE may appear CAGE in other parts of the Contract that directly refer to related US standards.

6.2.3   Changes to Provided Information

6.2.3.1   On occasions, it might become necessary to advise changes to previously provided information. For example, it might be subsequently found that the information supplied originally is incorrect or incomplete, the manufacturer/supplier has advised changes or that additional manufacturer's references are found to be applicable. In these cases, an amendment to the CDATA shall be provided to the Commonwealth (as required by the CDRL), which details the changed information, appropriately cross-referenced to the NSN (if known), the true manufacturer's name, NCAGE Code and reference / part number originally advised.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ILS-TDATA-DAL-V5.3

2.   TITLE: DATA ACCESSION LIST

3.   DESCRIPTION AND INTENDED USE

3.1   The Data Accession List (DAL) provides an accession list, which is an index of the Technical Data used or generated in the performance of the Contract, or used as source information for the Technical Data compiled under the Contract, where that Technical Data is not identified for delivery to the Commonwealth or an Associated Party in either the CDRL or a data item derived from the Master Technical Data Index (MTDI). The DAL is complementary to the MTDI and is updated throughout the period of the Contract.

3.2   The Contractor uses the DAL to inform the Commonwealth of Technical Data that is:

a.   used or generated in the performance of the Contract; and

b.   not required to be delivered under the Contract.

3.3   The Commonwealth uses the DAL as a means of identifying additional items of Technical Data that are available and that may allow the Commonwealth to better understand and evaluate, as applicable:

a.   the Contractor's decisions during design and development activities and, therefore, the Materiel System solution being provided to the Commonwealth;

b.   progress of the development of the Mission System and Support System solutions; and

c.   the completeness of the Support System Technical Data List (SSTDL) in listing Technical Data to be delivered to the Commonwealth and/or Associated Parties for the implementation of the Support System.

4.   INTER-RELATIONSHIPS

4.1   The DAL is subordinate to the following data items, where these data items are required under the Contract:

a.   Integrated Support Plan (ISP);

b.   Systems Engineering Management Plan (SEMP); and

c.   Technical Data Plan (TDP).

4.2   The DAL inter-relates with the following data items, where these data item are required under the Contract:

a.   all data items derived from the MTDI;

b.   Configuration Status Accounting Reports;

c.   Software List (SWLIST); and

d.   all other data items that identify, list, or which are Technical Data.

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The DAL shall be provided in soft copy as a structured data file (eg, one or more databases, spreadsheets or other structured data format) that enables the DAL content to be accessed, queried, read, printed, and used to generate soft copy tabulated text reports.

6.1.3   Except where the soft copy data file is compatible with a standard Software application defined elsewhere in the Contract, or otherwise agreed in advance and in writing by the Commonwealth Representative, the DAL shall be accompanied by any Software and Technical Data required to enable the functions identified in clause 6.1.2.

6.2   Specific Content

6.2.1   General Requirements

6.2.1.1 The DAL shall list Technical Data that is not identified in either the CDRL or a data item derived from the MTDI, if the Technical Data:

   a.   is used or generated (or required to be used or generated) in the performance of the Contract (eg, a trade study report used to inform design decisions or raw data recorded during an integration test activity); or

   b.   is used as source information to compile an item of Technical Data (eg, extant OEM manuals used in the compilation of a Maintenance publication) where the compiled item of Technical Data is required to be delivered to the Commonwealth or an Associated Party (eg, a support contractor) for the implementation of the Support System.

6.2.2   Detailed Requirements

6.2.2.1 The DAL shall include the following information for each item of Technical Data listed:

   a.   the item reference number, document number or drawing number, as applicable;

   b.   the name or title of the item of Technical Data;

   c.   the version (eg, draft, final), when applicable;

   d.   the revision / amendment status and release / issue date, as applicable;

   e.   a brief description of the item of Technical Data, including its purpose or use;

   f.   the unique product identifier of the system / sub-system / Configuration Item (CI) / end-product to which the item of Technical Data relates;

   g.   the name of the system / sub-system / CI / end-product to which the item of Technical Data relates;

   h.   the source (eg, name of Subcontractor / supplier that created or provided it); and

   i.   any applicable Australian or foreign security classification.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ILS-TDATA-LSAR-V5.3

Note to drafters: Tailorable elements of this DID (eg, the population of tables for each review and the Data Selection Sheet) should be tailored for inclusion in request for tender documents. Subsequently, these elements should also be reviewed pre-contract with the preferred tenderer and in the context of their proposed solution.

2.   TITLE: LOGISTIC SUPPORT ANALYSIS RECORD

3.   DESCRIPTION AND INTENDED USE

3.1   This Logistic Support Analysis (LSA) Record (LSAR) DID defines the data population requirements for the LSAR, to support project LSA Activities and to produce outputs for ILS products.

3.2   The Contractor and the Commonwealth use the LSAR as common source database for LSA and related analysis processes, and as the basis for a source for the data required to produce specific Technical Data and ILS products derived from the LSA process.

3.3   The Commonwealth also uses the LSAR to:

a.   assist with its understanding of the Contractor's designs for, and scope of work with respect to, both the Mission System and the Support System;

b.   assist with monitoring the Contractor's developmental activities under the Contract; and

c.   identify and understand the Commonwealth's scope of work with respect to reviewing and implementing ILS outcomes.

4.   INTER-RELATIONSHIPS

4.1   The LSAR is subordinate to the following data items, where these data items are required under the Contract:

a.   Integrated Support Plan (ISP); and

b.   Life Cycle Cost Management Plan (LCCMP).

4.2   The LSAR inter-relates with the following data items, where these data items are required under the Contract:

a.   Task Analysis Report (TAR);

b.   Failure Modes Effects and Criticality Analysis Report (FMECAR);

c.   Reliability Centred Maintenance Analysis Report (RCMAR);

d.   Level of Repair Analysis Report (LORAR);

e.   Life Cycle Cost Report and Model (LCCRM);

f.   Recommended Spares Provisioning List (RSPL);

g.   Support and Test Equipment Provisioning List (S&TEPL);

h.   Packaging Provisioning List (PACKPL);

i.   Recommended Provisioning List (RPL);

j.   Personnel Resource Requirements List (PRRL);

k.   Performance Needs Analysis Report (PNAR);

l.   Training Equipment List (TEL);

m.   Support System Technical Data List (SSTDL); and

n.   Facilities Requirements Analysis Report (FRAR).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

DEF(AUST)5692   *Logistic Support Analysis Record Requirements for the*
Issue 3   *Australian Defence Organisation*

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall be submitted with the delivery advice details provided in a format that complies with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item LSAR data shall comply with the data format, structure, and transfer requirements for validated LSAR systems as defined in DEF(AUST)5692.

6.2   Specific Content

6.2.1   Delivery Advice Details

6.2.1.1   <u>Delivery Overview</u>: This section shall summarise the purpose and contents of the data delivery and shall describe any security or privacy considerations associated with its use.

6.2.1.2   <u>Data Population</u>: This section shall briefly state the data growth for the initial delivery or between the current and previous deliveries. Data growth shall be described in terms of:

a.   the system(s) for which data has been populated;

b.   the indenture level of systems to which data has been populated; and

c.   data tables populated.

6.2.1.3   The term 'populated data tables', as used in this DID, does not imply that all data fields within a table must be populated. Only those data fields identified by the Data Selection Sheet at Annex A to this DID and the data required by the LSAR Table Rules for population of that table are required (ie, includes key fields and table rules described in DEF(AUST)5692).

6.2.2   LSAR Data Requirements

6.2.2.1   General

6.2.2.1.1   This section describes the data requirements for delivery as LSAR data via data transfer file, on-line access, or both, as required by the Statement of Work (SOW).

6.2.2.1.2   Where on-line access to the Contractor's LSAR is available, the term 'delivered data' is synonymous to that data being available on-line, at the specified time/milestone, with the ability to produce standard and ad hoc reports in accordance with DEF(AUST)5692.

6.2.2.1.3   Each LSAR data delivery shall include the details identified against the Mandated System Reviews, which list applicability, indenture level and the data tables populated for the Mission System and Support System. Data required from those tables is listed in the Data Selection Sheet at Annex A; if there is a conflict between the identification of a data table and the Data Selection Sheet, the Data Selection Sheet takes precedence.

6.2.2.2   System Requirements Review

6.2.2.2.1   The purpose of delivered data for System Requirements Review (SRR) is to ensure that the user/operator requirements have been captured in the LSAR. The requirements of this clause 6.2.2.2 are not applicable if an SRR is not required under the Contract.

6.2.2.2.2   <u>Delivered Data - Systems and Indenture Levels</u>: The following data shall be populated to the following indenture levels unless otherwise specified in the 'Populated Tables' section:

a.   Mission System - Level 3 Functional only (not applicable to A Tables, refer to the 'Delivered Data - Populated Tables' section below); and

b.   Support System - Level 1 Functional and Level 1 Physical.

6.2.2.2.3   Delivered Data - Populated Tables: The following table describes the data table requirements, by LSAR table, for the SRR; refer to the Data Selection Sheet at Annex A for the data requirements within each table group/table.

Table Group or Table(s)	Requirement	Objective
XA	As per Data Selection Sheet using a functional structure.	The LSAR shall record the project data identified for this table.
XB, XC	As per Data Selection Sheet	The LSAR shall identify top-level Mission System structures and Support System Components to meet specified requirements.
A Group	As per Data Selection Sheet	The LSAR shall record the specified operational requirements for the Mission System (Level 1) and those subsystems (to Level 2 or 3) with different operating rates.[1]

6.2.2.3   **System Definition Review**

6.2.2.3.1   The purpose of delivered data for the System Definition Review (SDR) is to capture the high level functional design in the LSAR and verify that intended Reliability, Availability and Maintainability (RAM) characteristics are consistent with specified user/operator requirements. The requirements of this clause 6.2.2.3 are not applicable if an SDR is not required under the Contract.

6.2.2.3.2   Delivered Data - Systems and Indenture Levels: The following data shall be populated to the following indenture levels unless otherwise specified in the 'Populated Tables' section:

a.   Mission System - Level 3 Functional items cross-mapped to physical items, at any level, used to substantiate projected RAM characteristics; and

b.   Support System - Level 1 Functional and Level 1 Physical.

6.2.2.3.3   Delivered Data - Populated Tables: The following table describes the data table requirements, by LSAR table, for the SDR; refer to the Data Selection Sheet at Annex A for the data requirements within each table group/table.

Table Group or Table(s)	Requirement	Objective
XA	Updates as applicable	
XB, XC, XF	As per Data Selection Sheet	The LSAR shall identify the Mission System functional LCN structure for each proposed configuration via a Usable On Code (UOC). The LSAR shall identify Support System Components where they are specific to an individual UOC.
XG	As per Data Selection Sheet	The LSAR shall record the cross-referencing between the functional and physical Mission System LCN structures.
A Group	Updates as applicable	
BA, BB, BC, BD, BE	As per Data Selection Sheet	The LSAR shall record the allocated / comparative / predicted RAM characteristics for the recorded Mission System components. These will be compared against requirements.

6.2.2.4   **Preliminary Design Review**

6.2.2.4.1   The purpose of delivered data for the Preliminary Design Review (PDR) is to introduce the physical Mission System structure, its failure modes, and to assess Materiel Safety. Results of FMECA are used to verify analyst understanding of mission criticality by mission phase, and Materiel Safety. Unacceptable safety or mission failures may be identified. RCM analysis results are required for failure modes identified with a severity class affecting safety, including any resulting preventive maintenance or proposed design changes. The requirements of this clause 6.2.2.4 are not applicable if a PDR is not required under the Contract.

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[1] Only identify systems/subsystems that have distinctly different operating rates to the Mission System. For example, an aircraft uses flying hours for the Mission System, landings are entered for the 'landing subsystem' (ie, physical undercarriage), etc.

6.2.2.4.2   <u>Delivered Data - Systems and Indenture Levels:</u> The following data shall be populated to the following indenture levels unless otherwise specified in the 'Populated Tables' section:

a.   Mission System - Level […INSERT INDENTURE LEVEL…] Physical / Level 3 Functional; and

b.   Support System Components - Level 1 Physical and Level 1 Functional.

Note to drafters: The number of physical indenture levels will depend upon the actual number of levels for a Mission System / end item and the depth needed to support the FMECA and RCM analysis data. A decision need to be made on how far down this analysis goes and also for limits of related data for OTS items used within the end item.

6.2.2.4.3   <u>Delivered Data - Populated Tables:</u>   The following table describes the data table requirements, by LSAR table, for the PDR; refer to the Data Selection Sheet at Annex A for the data requirements within each table group/table.

Table Group or Table(s)	Requirement	Objective
XA, XB, XC, XF	As per Data Selection Sheet with physical LCN Structure.	The LSAR shall record the Mission System physical LCN structure.
XG	Updates as applicable	
XH	As per Data Selection Sheet	The LSAR shall identify the Contractor and Subcontractors who will provide reference numbered items.
A Group	Updates if applicable	
BA - BE	Updates for physical LCN Structure items, including significant Support System Components.	
BF - BL, RI, VF	As per Data Selection Sheet for FMEA and FMECA data, and RCM analysis of safety critical failures.	The LSAR shall record the identified failure modes of the Mission System. This shall enable verification of criticality (including mission criticality) assessments via LSA-056 and safety related RCM analysis via LSA-050.
CA	Key and Mandatory fields only. For tasks identified from FMECA and RCM.	The LSAR shall identify Mission System tasks resulting from FMECA and RCM analysis for safety critical failures.
EA, EE	As per Data Selection Sheet for special to type Support & Test Equipment (S&TE) and Training Equipment, and those which are LLTIs.	The LSAR shall identify and provide explanations/justification for special-to-type S&TE. The LSAR shall identify S&TE and Training Equipment that are LLTIs through EA, HA and HG.
FA	As per Data Selection Sheet	The LSAR shall identify the names, category and types of facilities required.
HA	Part Identification details and Long Lead Time Item (LLTI) Provisioning Category Code only; excludes other indicator codes, dimensions, etc.	The LSAR shall record known part (reference) numbers to a level that matches the Physical LCN structure. This shall enable a review of LCN structure via LSA-126. The LSAR shall identify LLTIs to enable LLTI provisioning.
HD, HO	As per Data Selection Sheet for LLTIs.	The LLTI Provisioning Technical Documentation (PTD) list shall be recorded in the LSAR.
HG	Key fields.	As per HA.
VR, VS, VT	As per Data Selection Sheet	Identify Mission System roles and role equipment, as applicable.

6.2.2.5   Detailed Design Review

6.2.2.5.1   The purpose of the delivered data for the Detailed Design Review (DDR) is to ensure that there will be no design changes to the Mission System following DDR due to:

a.   unacceptable failure modes;

b.   unmaintainable designs; or

c.   designs that do not represent a solution that minimises LCC, in accordance with the Approved governing plan for LCC under the Contract (eg, the LCCMP).

6.2.2.5.2   Demonstrating that the design has stabilised for the above purposes requires the FMECA and RCM analysis of the Mission System to be complete. The delivered data enables the estimation of In-Service logistic requirements for Personnel and Facilities, and to review the achievability of the Australian Industry Capability (AIC) program from the preliminary maintenance allocations. The requirements of this clause 6.2.2.5 are not applicable if a DDR is not required under the Contract.

6.2.2.5.3   <u>Delivered Data - Systems and Indenture Levels:</u> The following data shall be populated to the following indenture levels unless otherwise specified in the 'Populated Tables' section:

a.   Mission System - All project applicable levels Physical / Level 3 Functional; and

b.   Support System Components - Level 1 Physical and Level 1 Functional.

6.2.2.5.4   <u>Delivered Data - Populated Tables:</u> The following table describes the data table requirements, by LSAR table, for the DDR; refer to the Data Selection Sheet at Annex A for the data requirements within each table group/table.

Table Group or Table(s)	Requirement	Objective
X, A Groups	Updates as applicable	
BA – BE	Updates as applicable	
BF - BL, RI, VF	As per Data Selection Sheet, including all FMECA and RCM results, and related tasks.	The LSAR shall identify all Mission System maintenance tasks, with traceability to FMECA and RCM analysis.
CA, CB	As per Data Selection Sheet for operator, maintenance and significant support tasks[2]. Include task/subtask identification, frequencies and predicted times.	The LSAR shall identify task requirements and preliminary maintenance allocations. This enables an assessment of achieving preparedness and LCC requirements based on R&M and task information. Review via ad hoc reports and LSA-016.
CD	As per Data Selection Sheet for operator and maintenance tasks.	The LSAR shall identify personnel requirements for on-equipment tasks. Review via LSA-001 and LSA-065.
CG, CI	As per Data Selection Sheet for on-equipment tasks.	The LSAR shall identify spares, S&TE and other provisioned items for on-equipment tasks.
EA, EE	Update as applicable, including all S&TE used or stored on-equipment.	
FA, FE	As per Data Selection Sheet	The LSAR shall identify facilities requirements for operations (if applicable), maintenance, and other listed support tasks.
GA, GB, GC	As per Data Selection Sheet	The LSAR shall document existing applicable ADF skills for allocation to tasks, and new or modified skills (if applicable) required to perform tasks.
HA	As per Data Selection Sheet, excluding Provisioning List Category Code (PLCC) data. Including existing NATO Stock Numbers (NSNs).	The LSAR shall identify part (reference) numbers for all Mission System LSA Candidate Items[3] and all items used in operation and on-equipment maintenance and support.
HD, HG, HO	Update as applicable	
JA, JF	As per Data Selection Sheet	The LSAR shall record requirements and remarks pertinent to the transport of the end items, as required for the operation and support concepts.
MA, ME	Applicable to items/tasks.	
RA, RB	As per Data Selection Sheet	To identify work area codes and descriptions.
VR, VS, VT	Update as applicable	
WV, WY	As per Data Selection Sheet	

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[2] Significant support tasks include preparation for transport of the end item or subsystems, special preparations for storage, etc.

[3] Generally, LSA Candidate Items are maintenance significant items, structural items requiring inspection, and any item that must be identified in the supply chain; as specified under the Contract. Bulk items and consumables are generally not Candidate Items.

6.2.2.6   Support System Detailed Design Review

6.2.2.6.1   The purpose of delivered data for the Support System Detailed Design Review (SSDDR) is to agree to the maintenance and support policies and to scope the related resource requirements. The SSDDR enables the development of ILS Products to commence, including provisioning lists, training material, and technical and support manuals. The SSDDR is the final review at which the Contractor demonstrates that its solution for the combined Mission System and Support System:

a.   represents a minimum LCC solution, as demonstrated in accordance with the Approved governing plan for the management of LCC under the Contract (eg, LCCMP); and

b.   will meet the requirements of the AIC program, as documented in the AIC Plan.

6.2.2.6.2   The requirements of this clause 6.2.2.6 are not applicable if an SSDDR is not required under the Contract.

6.2.2.6.3   <u>Delivered Data - Systems and Indenture Levels.</u> The LSAR data shall be populated to the following indenture levels unless otherwise specified in the 'Populated Tables' section:

a.   Mission System - All project applicable levels Physical / Level 3 Functional; and

b.   Support System Components - All project applicable levels required for the levels of repair and support of all support equipment, including S&TE and Training Equipment, for the Physical structure / Level 1 Functional.

6.2.2.6.4   <u>Delivered Data - Populated Tables.</u> The following table describes the data table requirements, by LSAR table, for the SSDDR; refer to the Data Selection Sheet at Annex A for the data requirements within each table group/table.

Table Group or Table(s)	Requirement	Objective
X, A, F, G, J Group	As per Data Selection Sheet with updates as applicable.	
XI	As per Data Selection Sheet.	The LSAR shall record Technical Manual Codes and Index Numbers.
B Group	Updates as applicable, including Support System Components requiring support.	The LSAR shall record R&M characteristics for all applicable to items with logistic support requirements.
CA, CB, CD	As per Data Selection Sheet for all tasks. Update maintenance allocations as a result of Level of Repair Analysis (LORA) for all tasks performed in country. Identify tasks with a training requirement.	The LSAR shall record task requirements and optimised maintenance allocations. The LSAR shall identify the tasks that require training for the training task inventory. The LSAR shall be reviewed to assess the achievement of preparedness and LCC requirements based on task information. Review tasks via ad hoc reports, LSA-016, and 023 or 024.
CE, CF, CG, CH, CI	As per Data Selection Sheet.	The LSAR shall identify maintenance task allocations based on non-economic LORA criteria. The LSAR shall identify resource requirements to tasks as required for conducting LORA. Tasks are to be allocated to operator and technical manuals.
E Group	As per Data Selection Sheet.	The LSAR shall identify all support equipment required for calculating the system resource requirements and conducting LORA.
U Group	As per Data Selection Sheet and as required to justify selected Test Equipment.	To justify identified Test Equipment.
HA	Updates as applicable, including Support System Components and items used to support them.	The LSAR shall identify all items for potential provisioning action and screening against existing In-Service items.
HD, HE, HF	As per Data Selection Sheet.	The LSAR shall identify the spares, packaging and resource costs for LORA.

Table Group or Table(s)	Requirement	Objective
HG	As per Data Selection Sheet, including SMR, Maintenance Task Distribution and PTDs identified in the Data Selection Sheet.	As per HA. The LSAR shall identify LRUs, assemblies and overhaul kits, task distributions, etc, for and from LORA.
MA, MC-MF	As applicable.	Narrative to provide sufficient explanation where required.
MB	As per Data Selection Sheet.	Required to describe each Maintenance Policy Trade.
RA, RB, RI	Updates if applicable.	
RM	As per Data Selection Sheet.	The LSAR shall identify each Maintenance Policy Trade.
VR – VT, VF	Updates if applicable.	
VE	As per Data Selection Sheet.	To justify task facilities.
WA – WD, WL – WR	As per Data Selection Sheet.	The LSAR shall identify tasks allocated to servicing schedules.
WV, WY	Updates if applicable.	

6.2.2.7 Task Analysis Requirements Review

6.2.2.7.1 The purpose of delivered data for the Task Analysis Requirements Review (TARR) is to review task narratives and maintenance allocations, personnel and resource requirements, S&TE requirements and application, and training requirements prior to the development of the technical manuals, training courses, and other ILS Technical Data products. Following this review, the production of publications, Training courses, and maintenance plans, can proceed based on consistent and integrated analysis data. The requirements of this clause 6.2.2.7 are not applicable if a TARR is not required under the Contract.

6.2.2.7.2 Delivered Data - Systems and Indenture Levels: The LSAR data shall be populated to the indenture levels described for the SSDDR.

6.2.2.7.3 Delivered Data - Populated Tables: The following table describes the data table requirements, by LSAR table, for the TARR; refer to the Data Selection Sheet at Annex A for the data requirements within each table group/table.

Table Group or Table(s)	Requirement	Objective
X, A, B, E, U, F, G, J, M Groups	Updates as applicable.	
XI	Updates as applicable.	LSAR to include Illustrated Parts Catalogue (IPC) identification.
CA, CB, CD, CE, CF, CG, CH, CI	Updates as applicable.	The LSAR shall record all task data necessary to enable the calculation of resource requirements.
CC	As per Data Selection Sheet.	The LSAR shall record narratives for all tasks to be performed in country for In-service support where existing off-the-shelf manuals have not been approved. Review via LSA-016, 018, 019.
CJ, CK	As per Data Selection Sheet.	The LSAR shall record task inventories for duties and jobs and place tasks in the applicable technical manuals.
HA – HG, HK, HL	As per Data Selection Sheet, with updates as applicable.	
R Group	As per Data Selection Sheet, with updates as applicable.	The LSAR shall document information to produce Technical Maintenance Plans (TMPs) and Planned Servicing Schedules (PSSs).
VE, VF, VR – VT	Updates as applicable.	
WA – WC, WM – WR	Updates as applicable.	

Table Group or Table(s)	Requirement	Objective
WG, WH, WS – WT, WX	As per Data Selection Sheet.	The LSAR shall document information to produce Planned Servicing Schedules.
Z Group	For LRU TMPs and PSSs.	***Note to drafters: These tables are primarily used by Aerospace, see DEF(AUST)5692 Issue 3.*** As per R table group (above) for Maintenance Managed Items (MMIs).

6.2.2.8 Provisioning Preparedness Review

6.2.2.8.1 The purpose of delivered data for the Provisioning Preparedness Review(s) is to review recommended provisioning lists for all spares, consumables, and support, test and training equipment. The requirements of this clause 6.2.2.8 are not applicable if Provisioning Preparedness Reviews are not required under the Contract.

6.2.2.8.2 <u>Delivered Data - Systems and Indenture Levels:</u> The LSAR data shall be populated to the indenture levels described for the SSDDR.

6.2.2.8.3 <u>Delivered Data - Populated Tables:</u> The following table describes the data table requirements, by LSAR table, for the Provisioning Preparedness Review(s); refer to the Data Selection Sheet at Annex A for the data requirements within each table group/table.

Table Group or Table(s)	Requirement	Objective/Note
X, A, B, C, E, U, F, G, J, M, R Groups	Updates if applicable.	
XD, XE	As per Data Selection Sheet.	The LSAR shall record any variations of Mission System or Support System configuration based on Serial Numbered End Items (if applicable).
HA – HF, HK, HL	Update as applicable.	
HG – HJ, HM, HO	As per Data Selection Sheet with updates as applicable.	The LSAR shall record updates to provisioning recommendations for use in approved provisioning lists, including repair and overhaul kits, IPC references and comments.
HN	As per Data Selection Sheet.	LSAR to address provisioning requirements that vary by serial numbered end item.
V Group	Updates as applicable.	
VA – VD	As per Data Selection Sheet.	LSAR shall record demand management details for supply management systems.
W Group	Updates as applicable.	
WE , WF, WI – WK	As per Data Selection Sheet.	LSAR shall record alternative part identification and authority for use details.

6.2.2.9 Functional Configuration Audit and Physical Configuration Audit

6.2.2.9.1 As part of the Functional Configuration Audit (FCA) and Physical Configuration Audit (PCA) the LSAR is to be validated to ensure that the LSAR is consistent with the build structures of, and interfaces between, the Mission System and Support System. The requirements of this clause 6.2.2.9 are not applicable if a FCA and a PCA are not required under the Contract.

6.2.2.9.2 <u>Delivered Data:</u> The LSAR shall have all of the specified data elements completed for all applicable indenture levels for both the Mission System and Support System for the purposes of the FCA and PCA.

6.3 Annex

A.   Data Selection Sheet

Note to drafters: Identify the required elements in the Data Selection Sheet to suit the requirements of the project.

Data Element	Key	DED	DE CODE	Required
CROSS FUNCTIONAL REQUIREMENTS				
TABLE XA: END ITEM ACRONYM CODE				
END ITEM ACRONYM CODE (EIAC)	K	096	EIACODXA	
LCN STRUCTURE		202	LCNSTRXA	
ADMINISTRATIVE LEAD TIME	G	014	ADDLTMXA	
CONTACT TEAM DELAY TIME	G	052	CTDLTMXA	
CONTRACT NUMBER	G	055	CONTNOXA	
COST PER REORDER ACTION	G	061	CSREORXA	
COST PER REQUISITION	G	062	CSPRRQXA	
DEMILITARIZATION COST	G	077	DEMILCXA	
DISCOUNT RATE	G	083	DISCNTXA	
HOLDING COST PERCENTAGE	G	160	HLCSPCXA	
ESTIMATED SALVAGE VALUE	G	102	ESSALVXA	
INITIAL BIN COST	G	166	INTBINXA	
INITIAL CATALOGUING COST	G	167	INCATCXA	
INTEREST RATE	G	173	INTRATXA	
INVENTORY STORAGE SPACE COST	G	176	INVSTGXA	
LOADING FACTOR	G	195	LODFACXA	
OPERATION LEVEL	G	271	WSOPLVXA	
OPERATION LIFE	G	272	OPRLIFXA	
PERSONNEL TURNOVER RATE	G	289	-----	
PRODUCTIVITY FACTOR	G	300	PROFACXA	
RECURRING BIN COST	G	333	RCBINCXA	
RECURRING CATALOGUING COST	G	334	RCCATCXA	
RETAIL STOCKAGE CRITERIA	G	359	RESTCRXA	
SAFETY LEVEL	G	363	SAFLVLXA	
SUPPORT OF SUPPORT EQUIPMENT COST FACTOR	G	421	SECSFCXA	
TRANSPORTATION COST	G	466	TRNCSTXA	
TYPE ACQUISITION	G	478	WSTYAQXA	
TYPE OF SUPPLY SYSTEM CODE	G	484	TSSCODXA	
TABLE XB: LSA CONTROL NUMBER INDENTURED ITEM				
LSA CONTROL NUMBER (LCN)	K	199	LSACONXB	
ALTERNATE LCN CODE	K	019	ALTLCNXB	
LCN TYPE	K	203	LCNTYPXB	
LCN INDENTURE CODE (LCN-IC)		200	LCNINDXB	
LCN NOMENCLATURE		201	LCNAMEXB	
TECHNICAL MANUAL FUNCTIONAL GROUP CODE (MAINTENANCE ALLOCATION CHART)		438	TMFGCDXB	
SYSTEM/END ITEM IDENTIFIER		423	SYSIDNXB	

Data Element	Key	DED	DE CODE	Required
SECTIONALIZED ITEM TRANSPORTATION INDICATOR		367	SECITMXB	
RELIABILITY AVAILABILITY MAINTAINABILITY INDICATOR		342	RAMINDXB	
TABLE XC: SYSTEM/END ITEM				
USABLE ON CODE (UOC)	G	501	UOCSEIXC	
SYSTEM/EI PROVISIONING CONTRACT CONTROL NUMBER	G	307	PCCNUMXC	
SYSTEM/EI ITEM DESIGNATOR CODE		179	ITMDESXC	
SYSTEM/EI PROVISIONING LIST ITEM SEQUENCE NUMBER		309	PLISNOXC	
SYSTEM/EI TYPE OF CHANGE CODE		481	TOCCODXC	
SYSTEM/EI QUANTITY PER ASSEMBLY		316	QTYASYXC	
SYSTEM/EI QUANTITY PER END ITEM		317	QTYPEIXC	
TRANSPORTATION END ITEM INDICATOR		467	TRASEIXC	
TABLE XD: SYSTEM/END ITEM SERIAL NUMBER				
SERIAL NUMBER	K	373	-----	
SERIAL NUMBER USEABLE ON CODE		375	SNUUOCXD	
TABLE XE: LCN TO SERIAL NUMBER USABLE ON CODE				
SELECT TABLE XE				
TABLE XF: LCN TO SYSTEM/END ITEM USABLE ON CODE				
SELECT TABLE XF				
TABLE XG: FUNCTIONAL/PHYSICAL LCN MAPPING				
SELECT TABLE XG				
TABLE XH: COMMERCIAL AND GOVERNMENT ENTITY CODE				
COMMERCIAL AND GOVERNMENT ENTITY (CAGE) CODE	K	046	CAGECDXH	
CAGE NAME		047	CANAMEXH	
CAGE ADDRESS		047	-----	
TABLE XI: TECHNICAL MANUAL CODE AND NUMBER INDEX				
TECHNICAL MANUAL (TM) CODE	K	437	TMCODEXI	
TECHNICAL MANUAL NUMBER	G	440	TMNUMBXI	
OPERATIONS AND MAINTENANCE REQUIREMENTS				
TABLE AA: OPERATIONS AND MAINTENANCE REQUIREMENT				
END ITEM ACRONYM CODE (EIAC)	F	096	EIACODXA	
LSA CONTROL NUMBER (LCN)	F	199	LSACONXB	
ALTERNATE LCN CODE	F	019	ALTLCNXB	
LCN TYPE	F	203	LCNTYPXB	
SERVICE DESIGNATOR CODE	K	376	SERDESAA	
REQUIRED MAXIMUM TIME TO REPAIR	G	222	MAXTTRAA	
REQUIRED PERCENTILE	G	286	PERCENAA	
REQUIRED ACHIEVED AVAILABILITY	G	001	ACHAVAAA	
REQUIRED INHERENT AVAILABILITY	G	164	INHAVAAA	
OPERATIONAL MEAN ACTIVE MAINTENANCE DOWNTIME	G	223	OMAMDTAA	
TECHNICAL MEAN ACTIVE MAINTENANCE DOWNTIME	G	223	TMAMDTAA	
REQUIRED OPERATIONAL MEAN TIME TO REPAIR	G	236	OPMTTRAA	
REQUIRED TECHNICAL MEAN TIME TO REPAIR	G	236	TEMTTRAA	

Data Element	Key	DED	DE CODE	Required
NUMBER OF OPERATING LOCATIONS	G	262	NUOPLOAA	
CREW SIZE	G	064	CREWSZAA	
TOTAL SYSTEMS SUPPORTED	G	454	TOSYSUAA	
RELIABILITY CENTERED MAINTENANCE LOGIC UTILIZED	G	345	RCMLOGAA	
TABLE AB: WAR/PEACE OPERATIONS AND MAINTENANCE REQUIREMENT				
OPERATIONAL REQUIREMENT INDICATOR	K	275	OPRQINAB	
ANNUAL NUMBER OF MISSIONS	G	021	ANNOMIAB	
ANNUAL OPERATING DAYS	G	022	ANOPDAAB	
ANNUAL OPERATING TIME	G	024	ANOPTIAB	
MEAN MISSION DURATION	G	228	MMISDUAB	
REQUIRED OPERATIONAL AVAILABILITY	G	273	OPAVAIAB	
REQUIRED ADMINISTRATIVE AND LOGISTIC DELAY TIME	G	013	OPALDTAB	
REQUIRED STANDBY TIME	G	403	OSTBTIAB	
TABLE AC: MAINTENANCE LEVEL REQUIREMENT				
OPERATIONS AND MAINTENANCE LEVEL CODE	K	277	OMLVLCAC	
MAINTENANCE LEVEL MAXIMUM TIME TO REPAIR	G	222	MLMTTRAC	
MAINTENANCE LEVEL PERCENTILE	G	286	MLPERCAC	
NUMBER OF SYSTEMS SUPPORTED	G	265	MLNSSUAC	
MAINTENANCE LEVEL SCHEDULED ANNUAL MAN-HOURS	G	020	MLSAMHAC	
MAINTENANCE LEVEL UNSCHEDULED ANNUAL MAN-HOURS	G	020	MLUAMHAC	
SCHEDULED MAN-HOUR PER OPERATING HOUR	G	215	MLSMHOAC	
UNSCHEDULED MAN-HOUR PER OPERATING HOUR	G	215	MLUMHOAC	
UNSCHEDULED MAINTENANCE MEAN ELAPSED TIME	G	499	MLUMETAC	
UNSCHEDULED MAINTENANCE MEAN MAN-HOURS	G	499	MLUMMHAC	
TABLE AD: ORGANIZATIONAL LEVEL REQUIREMENT				
DAILY INSPECTION MEAN ELAPSED TIME	G	280	DINMETAD	
DAILY INSPECTION MEAN MAN-HOURS	G	280	DINMMHAD	
PRE-OPERATIVE INSPECTION MEAN ELAPSED TIME	G	280	PREMETAD	
PRE-OPERATIVE INSPECTION MEAN MAN-HOURS	G	280	PREMMHAD	
POSTOPERATIVE INSPECTION MEAN ELAPSED TIME	G	280	POIMETAD	
POSTOPERATIVE INSPECTION MEAN MAN-HOURS	G	280	POIMMHAD	
PERIODIC INSPECTION MEAN ELAPSED TIME	G	280	PINMETAD	
PERIODIC INSPECTION MEAN MAN-HOURS	G	280	PINMMHAD	
MISSION PROFILE CHANGE MEAN ELAPSED TIME	G	280	MPCMETAD	
MISSION PROFILE CHANGE MEAN MAN-HOURS	G	280	MPCMMHAD	
TURNAROUND INSPECTION MEAN ELAPSED TIME	G	280	TINMETAD	
TURNAROUND INSPECTION MEAN MAN-HOURS	G	280	TINMMHAD	
TABLE AE: SKILL OPERATIONS AND MAINTENANCE REQUIREMENT				
SKILL SPECIALTY CODE	F	387	SKSPCDGA	
AVAILABLE MAN-HOUR	G	028	AVAIMHAE	
AVAILABLE QUANTITY	G	324	QTYAVAAE	
UTILIZATION RATIO	G	503	UTRATIAE	

Data Element	Key	DED	DE CODE	Required
TABLE AF: WAR/PEACE ADDITIONAL REQUIREMENTS NARRATIVE				
ADDITIONAL REQUIREMENTS	G	009	WPADDRAF	
TABLE AG: RELIABILITY REQUIREMENT				
ANNUAL OPERATING REQUIREMENT	M	023	ANOPREAG	
RELIABILITY OPERATIONAL REQUIREMENTS INDICATOR	M	275	OPRQINAG	
REQUIRED OPERATIONAL MEAN TIME BETWEEN FAILURES	G	229	OPMTBFAG	
REQUIRED TECHNICAL MEAN TIME BETWEEN FAILURES	G	229	TEMTBFAG	
REQUIRED OPERATIONAL MEAN TIME BETWEEN MAINTENANCE ACTIONS	G	230	OPMRBMAG	
REQUIRED TECHNICAL MEAN TIME BETWEEN MAINTENANCE ACTIONS	G	230	TMTBMAAG	
REQUIRED MEAN TIME BETWEEN REMOVALS	G	235	MTBRXXAG	
TABLE AH: INTEROPERABILITY REQUIREMENT				
INTEROPERABLE ITEM NAME	K	182	IONAMEAH	
INTEROPERABLE ITEM NUMBER TYPE	K	266	IOINTYAH	
INTEROPERABLE CAGE CODE	G	046	IOCAGEAH	
INTEROPERABLE REFERENCE NUMBER	G	337	IOREFNAH	
INTEROPERABLE ITEM NATIONAL STOCK NUMBER	G	253	-----	
INTEROPERABLE ITEM TECHNICAL MANUAL NUMBER	G	440	IOITNMAH	
TABLE AI: MODELLING DATA				
MODELLING SERVICE DESIGNATOR CODE	K	376	SERDESAI	
MODELLING OPERATIONS AND MAINTENANCE LEVEL CODE	K	277	OMLVLCAI	
LABOUR RATE	G	189	LABRATAI	
NUMBER OF SHOPS	G	263	NOSHPSAI	
REPAIR WORK SPACE COST	G	352	RPWSCSAI	
REQUIRED DAYS OF STOCK	G	357	RQDSTKAI	
TABLE AJ: OPERATIONS AND MAINTENANCE SHIPPING REQUIREMENT				
OPERATIONS AND MAINTENANCE LEVEL FROM	K	277	OMLVLFAJ	
OPERATIONS AND MAINTENANCE LEVEL TO	K	277	OMLVLTAJ	
SHIP DISTANCE	G	085	SHPDISAJ	
SHIP TIME	G	379	TIMESHAJ	
TABLE AK: SYSTEM/END ITEM NARRATIVE				
SYSTEM/END ITEM NARRATIVE CODE	K	424	SEINCDAK	
ADDITIONAL SUPPORTABILITY CONSIDERATIONS	G	010		
ADDITIONAL SUPPORTABILITY PARAMETERS	G	011		
OPERATIONAL MISSION FAILURE DEFINITION	G	274		
ITEM RELIABILITY, AVAILABILITY, AND MAINTAINABILITY REQUIREMENTS; FAILURE MODES EFFECTS AND CRITICALITY ANALYSIS; AND MAINTAINABILITY ANALYSIS				
TABLE BA: RELIABILITY, AVAILABILITY, AND MAINTAINABILITY CHARACTERISTICS				
END ITEM ACRONYM CODE (EIAC)	F	096	EIACODXA	
LSA CONTROL NUMBER (LCN)	F	199	LSACONXB	
ALTERNATE LCN CODE	F	019	ALTLCNXB	
LCN TYPE	F	203	LCNTYPXB	
MINIMUM EQUIPMENT LIST INDICATOR		243	MEQLINBA	

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Data Element	Key	DED	DE CODE	Required
CONVERSION FACTOR		059	CONVFABA	A-5
FAULT ISOLATION		143	-----	
BIT DETECTABILITY LEVEL PERCENTAGE		032	-----	
BUILT-IN-TEST CANNOT DUPLICATE PERCENTAGE		031	BITNDPBA	
BUILT-IN-TEST RETEST OK PERCENT		033	BITROPBA	
FAILURE RATE DATA SOURCE		141	FRDATABA	
PILOT REWORK OVERHAUL CANDIDATE		292	PREOVCBA	
SECURITY CLEARANCE		369	SECCLEBA	
SUPPORT CONCEPT		410	SUPCONBA	
WEAROUT LIFE		505	WEOULIBA	
LOGISTIC CONSIDERATIONS		196	-----	
TABLE BB: RELIABILITY, AVAILABILITY, AND MAINTAINABILITY CHARACTERISTICS NARRATIVE				
RAM CHARACTERISTICS NARRATIVE CODE	K	341	RAMCNABB	
ITEM FUNCTION		180		
MAINTENANCE CONCEPT		207		
MINIMUM EQUIPMENT LIST NARRATIVE		244		
QUALITATIVE & QUANTITATIVE MAINTAINABILITY RQMT		315		
MAINTENANCE PLAN RATIONALE		210		
TABLE BC: RELIABILITY, AVAILABILITY, AND MAINTAINABILITY LOGISTICS CONSIDERATIONS				
LOGISTICS CONSIDERATION CODE	K	425	LOCOCOBC	
RAM LOGISTICS CONSIDERATIONS		426	LOGNARBC	
TABLE BD: RELIABILITY, AVAILABILITY, AND MAINTAINABILITY INDICATOR CHARACTERISTICS				
RAM INDICATOR CODE	K	347	RAMINDBD	
ACHIEVED AVAILABILITY		001	ACHAVABD	
INHERENT AVAILABILITY		164	INHAVABD	
FAILURE RATE		140	FAILRTBD	
INHERENT MAINTENANCE FACTOR		165	INHMAFBD	
MAXIMUM TIME TO REPAIR (MAXTTR)		222	MAXTTRBD	
PERCENTILE		286	PERCENBD	
MEAN TIME TO REPAIR OPERATIONAL		236	MTTROPBD	
MEAN TIME TO REPAIR TECHNICAL		236	MTTRTHBD	
MEAN TIME BETWEEN FAILURES OPERATIONAL		229	OPMTBFBD	
MEAN TIME BETWEEN FAILURES TECHNICAL		229	TEMTBFBD	
MEAN TIME BETWEEN MAINTENANCE ACTIONS (MTBMA) OPERATIONAL		230	OMTBMABD	
MEAN TIME BETWEEN MAINTENANCE ACTIONS TECHNICAL		230	TMTBMABD	
MEAN TIME BETWEEN MAINTENANCE INDUCED		231	INMTBMBD	
MEAN TIME BETWEEN MAINTENANCE INHERENT (MTBM INHERENT)		232	INHMTBBD	
MEAN TIME BETWEEN MAINTENANCE NO DEFECT		233	NOMTBMBD	
MEAN TIME BETWEEN PREVENTIVE MAINTENANCE		234	MTBMPVBD	
MEAN TIME BETWEEN REMOVALS (MTBR)		235	MTBRXXBD	

Data Element	Key	DED	DE CODE	Required
TABLE BE: WAR/PEACE RELIABILITY, AVAILABILITY, AND MAINTAINABILITY INDICATOR CHARACTERISTICS				
RAM OPERATIONAL REQUIREMENT INDICATOR	K	275	OPRQINBE	
ADMINISTRATIVE AND LOGISTIC DELAY TIME		013	ALDTXXBE	
OPERATIONAL AVAILABILITY		273	OPAVAIBE	
STANDBY TIME		403	STABYTBE	
TABLE BF: FAILURE MODE AND RELIABILITY CENTERED MAINTENANCE ANALYSIS				
FAILURE MODE INDICATOR (FMI)	K	134	FAMOINBF	
ENGINEERING FAILURE MODE MEAN TIME BETWEEN FAILURE (MTBF)		097	EFMTBFBF	
FAILURE MODE CLASSIFICATION		132	FMCLASBF	
FAILURE MODE RATIO		136	FMRATOBF	
RELIABILITY CENTERED MAINTENANCE (RCM) LOGIC RESULTS (01 to 25)		344	-----	
RCM DISPOSITION (A to J)		084	-----	
TABLE BG: FAILURE MODE AND RELIABILITY CENTERED MAINTENANCE NARRATIVE				
FAILURE MODE & RCM NARRATIVE CODE	K	131	FMNCNABG	
FAILURE/DAMAGE MODE EFFECT END EFFECT		125		
FAILURE/DAMAGE MODE EFFECT LOCAL		126		
FAILURE/DAMAGE MODE EFFECT NEXT HIGHER		127		
FAILURE CAUSE		124		
FAILURE/DAMAGE MODE		128		
FAILURE MODE DETECTION METHOD		129		
FAILURE PREDICTABILITY		138		
FAILURE MODE REMARKS		137		
REDESIGN RECOMMENDATIONS		426		
RCM AGE EXPLORATION		343		
RCM REASONING		346		
RCM REDESIGN RECOMMENDATIONS		426		
TABLE BH: FAILURE MODE TASK				
TASK REQUIREMENT LCN	F	199	TLSACNBH	
TASK REQUIREMENT ALTERNATE LCN CODE	F	019	TALCNCBH	
TASK REQUIREMENT LCN TYPE	F	203	TLCNTYBH	
TASK CODE	F	427	TTASKCBH	
TASK TYPE		433	TATYPEBH	
MAINTENANCE INTERVAL		208	MAININBH	
TABLE BI: FAILURE MODE INDICATOR MISSION PHASE CODE CHARACTERISTICS				
SAFETY HAZARD SEVERITY CODE	M	362	FMSHSCBI	
FAILURE EFFECT PROBABILITY		130	FEPROBBI	
FAILURE MODE CRITICALITY NUMBER		133	FACRNUBI	
FAILURE PROBABILITY LEVEL		139	FPROBLBI	
OPERATING TIME		269	FMOPTIBI	
TABLE BJ: FAILURE MODE INDICATOR MISSION PHASE CODE CHARACTERISTICS NARRATIVE				
FMI MISSION PHASE CHARACTERISTICS NARRATIVE CODE	K	135	FMMPCNBJ	

Data Element	Key	DED	DE CODE	Required
COMPENSATING DESIGN PROVISIONS		049		
COMPENSATING OPERATOR ACTION PROVISIONS		050		
TABLE BK: RELIABILITY, AVAILABILITY, AND MAINTAINABILITY CRITICALITY				
RAM SAFETY HAZARD SEVERITY CODE	K	362	FMSHSCBK	
RAM ITEM CRITICALITY NUMBER		178	RICRITBK	
TABLE BL: MISSION PHASE OPERATIONAL MODE				
MISSION PHASE CODE	K	246	MISSPCBL	
MISSION PHASE/OPERATIONAL MODE		247	MPOPLDBL	
TASK ANALYSIS AND PERSONNEL AND SUPPORT REQUIREMENT				
TABLE CA: TASK REQUIREMENT				
END ITEM ACRONYM CODE	F	096	EIACODXA	
LSA CONTROL NUMBER (LCN)	F	199	LSACONXB	
ALTERNATE LCN CODE	F	019	ALTLCNXB	
LCN TYPE	F	203	LCNTYPXB	
TASK CODE	K	427	TASKCDCA	
REFERENCED TASK CODE		427	REFTSKCA	
TASK AOR MEASUREMENT BASE		238	AORMSBCA	
TASK IDENTIFICATION	M	431	TASKIDCA	
TASK FREQUENCY	M	430	TSKFRQCA	
TASK CRITICALITY CODE		429	TSKCRCCA	
HARDNESS CRITICAL PROCEDURE (HCP) CODE		152	HRDCPCCA	
HAZARDOUS MAINTENANCE PROCEDURES CODE		155	HAZMPCCA	
PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) INDICATOR CODE		296	PMCSIDCA	
MEASURED MEAN ELAPSE TIME		224	MSDMETCA	
PREDICTED MEAN ELAPSE TIME		224	PRDMETCA	
MEASURED MEAN MAN-HOURS		225	MSDMMHCA	
PREDICTED MEAN MAN-HOURS		225	PRDMMHCA	
MEANS OF DETECTION		237	-----	
FACILITY REQUIREMENT CODE		358	FTRNRQCA	
TRAINING EQUIPMENT REQUIREMENT CODE		358	TRNRQCCA	
TRAINING RECOMMENDATION TYPE		463	TRNRECCA	
TRAINING LOCATION RATIONALE		461	TRNLOCCA	
TRAINING RATIONALE		462	TRNRATCA	
TOOL/SUPPORT EQUIPMENT REQUIREMENT CODE		358	TSEREQCA	
TASK PERFORMANCE		287	-----	
TASK CONDITION		428	-----	
TABLE CB: SUBTASK REQUIREMENT				
SUBTASK NUMBER	K	407	SUBNUMCB	
REFERENCED SUBTASK NUMBER		407	RFDSUBCB	
SUBTASK MEAN MINUTE ELAPSED TIME		227	SBMMETCB	
SUBTASK WORK AREA CODE		514	SUBWACCB	

Data Element	Key	DED	DE CODE	Required
TABLE CC: SEQUENTIAL SUBTASK DESCRIPTION				
SEQUENTIAL SUBTASK DESCRIPTION		372	SUBNARCC	
ELEMENT INDICATOR		095	ELEMNTCC	
TABLE CD: SUBTASK PERSONNEL REQUIREMENT				
SUBTASK PERSON IDENTIFIER	K	288	SUBPIDCD	
SKILL SPECIALTY CODE		387	SKSPCDGA	
NEW OR MODIFIED SKILL SPECIALTY CODE		257	MDCSSCGB	
SUBTASK MEAN MAN-MINUTES		226	SUBMMMCD	
SKILL SPECIALTY EVALUATION CODE		388	SSECDECD	
TABLE CE: TASK REMARK				
TASK REMARK REFERENCE CODE	K	349	TSKRRCCE	
TASK REMARKS		432	TSKREMCE	
TABLE CF: TASK REMARK REFERENCE				
SELECT TABLE CF				
TABLE CG: TASK SUPPORT EQUIPMENT				
TASK SUPPORT CAGE CODE	F	046	TSCAGECG	
TASK SUPPORT REFERENCE NUMBER	F	337	TSREFNCG	
SUPPORT ITEM QUANTITY PER TASK		319	SQTYTKCG	
TABLE CH: TASK MANUAL				
TECHNICAL MANUAL (TM) CODE	F	437	TMCODEXI	
TABLE CI: TASK PROVISIONED ITEM				
TASK PROVISION CAGE CODE	F	046	PROCAGCI	
TASK PROVISION REFERENCE NUMBER	F	337	PROREFCI	
TASK PROVISION LCN	F	199	PROLCNCI	
TASK PROVISION ALC	F	019	PROALCCI	
TASK PROVISION LCN TYPE	F	203	PROLTYCI	
PROVISION QUANTITY PER TASK		319	PQTYTKCI	
TABLE CJ: JOB AND DUTY ASSIGNMENTS				
JOB CODE	K	186	JOBCODCJ	
DUTY CODE	K	091	DUTYCDCJ	
JOB		185	JOBDESCJ	
DUTY		090	DUTIESCJ	
TABLE CK: TASK INVENTORY				
SELECT TABLE CK				
SUPPORT EQUIPMENT AND TRAINING MATERIEL REQUIREMENTS				
TABLE EA: SUPPORT EQUIPMENT				
SUPPORT EQUIPMENT (SE) CAGE CODE	F	046	SECAGEEA	
SE REFERENCE NUMBER	F	337	SEREFNEA	
SE FULL ITEM NAME		412	FLITNMEA	
SE ITEM CATEGORY CODE		177	SEICCDEA	
ACQUISITION DECISION OFFICE	G	002	AQDCOFEA	
END ARTICLE ITEM DESIGNATOR		179	ENDARTEA	

Data Element	Key	DED	DE CODE	Required
ADAPTOR/INTERCONNECTION DEVICE REQUIRED		005	AIDRQDEA	
DATE OF FIRST ARTICLE DELIVERY		071	DATFADEA	
CALIBRATION INTERVAL		037	CALINTEA	
CALIBRATION ITEM		038	CALITMEA	
CALIBRATION REQUIRED		040	CALRQDEA	
CALIBRATION STANDARD		041	CALSTDEA	
CALIBRATION TIME		042	CALTIMEA	
CALIBRATION MEASUREMENT REQUIREMENT SUMMARY RECOMMENDED		035	CMRSRCEA	
SE CONTRACT NUMBER		055	CNTRNOEA	
CFE / GFE		056	CFEGFEEA	
CUSTODY CODE		069	CUSTCDEA	
DRAWING CLASSIFICATION		088	DRWCLSEA	
ECONOMIC ANALYSIS		093	ECOANLEA	
FAMILY GROUP		142	FAMGRPEA	
GENERIC CODE		148	GENECDEA	
GOVERNMENT DESIGNATOR		149	GOVDESEA	
HARDWARE DEVELOPMENT PRICE		153	HDWRPREA	
INTEGRATED LOGISTIC SUPPORT PRICE		170	ILSPRCEA	
DESIGN DATA PRICE		080	DSNPRCEA	
EXTENDED UNIT PRICE		103	EXUNPREA	
PASS THROUGH PRICE		285	PASTHREA	
OPERATING AND SUPPORT COST		267	OSCOSTEA	
RECURRING COST		332	RCURCSEA	
LIFE CYCLE STATUS		190	LICYSTEA	
LIFE SPAN		191	LIFSPNEA	
LOGISTIC CONTROL CODE		197	LGCTCDEA	
LOGISTICS DECISION OFFICE	G	198	LGDCOFEA	
LSA RECOMMENDATION CODE		204	LSARCDEA	
MANAGEMENT PLAN	G	216	MGTPLNEA	
MANAGING COMMAND/AGENCY		217	MGCOATEA	
SUPPORT EQUIPMENT MEAN TIME BETWEEN FAILURES		229	SEMTBFEA	
SUPPORT EQUIPMENT MEAN TIME BETWEEN MAINTENANCE ACTIONS		230	SMTBMAEA	
SUPPORT EQUIPMENT MEAN TIME TO REPAIR		236	SEMTTREA	
MOBILE FACILITY CODE		248	MOBFACEA	
MODIFICATION OR CHANGE		252	MODCHGEA	
OPERATING DIMENSIONS		268	-----	
OPERATING WEIGHT		270	OPRWGTEA	
PRINTED CIRCUIT BOARD REPAIR OPERATIONS/MAINTENANCE LEVEL		277	PCBLVLEA	
SE CALIBRATION OPERATIONS/MAINTENANCE LEVEL		277	CALLVLEA	
SE REPAIR OPERATIONS/MAINTENANCE LEVEL		277	RPRLVLEA	
SE SOURCE, MAINTENANCE AND RECOVERABILITY CODE	G	389	SMRCSEEA	

Data Element	Key	DED	DE CODE	Required
TECHNICAL MANUAL REQUIRED CODE		441	TMRQCDEA	
OPERATORS MANUAL		278	OPRMANEA	
SKILL SPECIALTY CODE (SSC) FOR SE OPERATOR (SEO)		387	SSCOPREA	
PREPARING ACTIVITY		294	PREATYEA	
PROGRAM ELEMENT	G	301	PROELEEA	
PROGRAM SUPPORT INVENTORY CONTROL POINT	G	303	PSICPOEA	
REPORTABLE ITEM CONTROL CODE		356	SERICCEA	
REVOLVING ASSETS	G	361	REVASSEA	
SELF TEST CODE		370	SLFTSTEA	
SENSORS OR TRANSDUCERS		371	SENTRAEA	
SE SERVICE DESIGNATOR		376	SERDESEA	
USING SERVICE DESIGNATOR CODE		376	USESEREA	
SKETCH		383	SKETCHEA	
SPARE FACTOR	G	390	SPRFACEA	
SPECIAL MANAGEMENT CODE	G	393	SPMGNTEA	
STANDARD INTERSERVICE AGENCY SERIAL CONTROL NUMBER	G	401	SIASCNEA	
STORAGE DIMENSIONS		405	-----	
STORAGE WEIGHT		406	STOWGTEA	
SUPPORT EQUIPMENT SHIPPING DIMENSIONS	G	419	-----	
SUPPORT EQUIPMENT SHIPPING WEIGHT	G	420	SESHWTEA	
SUPPORT EQUIPMENT GROUPING		413	SEGRCDEA	
SUPPORT EQUIPMENT REQUIRED		418	SEREQDEA	
TECHNICAL EVALUATION PRIORITY CODE		435	TECEVLEA	
TEST LANGUAGE		443	TSTLNGEA	
TEST POINTS		446	TSTPTSEA	
TMDE REGISTER CODE		444	TMDERCEA	
TMDE REGISTER INDEX		445	TMDERIEA	
TYPE CLASSIFICATION		479	TYPCLSEA	
TYPE EQUIPMENT CODE	G	480	TYPEEQEA	
YEAR OF FIELDING		518	YRFLDGEA	
TABLE EB: ALLOCATION DATA				
ALLOWANCE DOCUMENT NUMBER	B	016	ALDCNMEB	
ALLOWABLE RANGE 1-10 AND EXTENDED RANGE	G	015	-----	
ALLOCATION DESIGNATION DESCRIPTION	G	015	ALDNDSEB	
ALLOCATION LAND VESSEL CODE	G	015	ALLVCDEB	
ALLOCATION MAINTENANCE LEVEL FUNCTION	G	015	ALMLVLEB	
ALLOCATION STATION IDENTIFICATION CODE	G	015	ALSTIDEB	
TABLE EC: SUPPORT EQUIPMENT PARAMETERS				
CALIBRATION PROCEDURE	K	039	CALPROEC	
SUPPORT EQUIPMENT PARAMETERS		284	-----	
TABLE ED: SUPPORT EQUIPMENT AUTHORIZATION				
SPECIFIC AUTHORIZATION	B	399	-----	

Data Element	Key	DED	DE CODE	Required
TABLE EE: SUPPORT EQUIPMENT NARRATIVE				
SUPPORT EQUIPMENT NARRATIVE CODE	K	414	SENARCEE	
FUNCTIONAL ANALYSIS		147		
DESCRIPTION AND FUNCTION OF SE		078		
SUPPORT EQUIPMENT NON-PROLIFERATION EFFORT		415		
CHARACTERISTICS OF SE		44		
INSTALLATION FACTORS OR OTHER FACILITIES		169		
ADDITIONAL SKILLS AND SPECIAL TRAINING REQUIREMENTS		008		
SUPPORT EQUIPMENT EXPLANATION		411		
JUSTIFICATION		188		
TABLE EF: SUPPORT EQUIPMENT RECOMMENDATION DATA				
SE RECOMMENDATION DATA (SERD) NUMBER	K	416	SERDNOEF	
SERD REVISION	K	360	SRDREVEF	
SERD STATUS		404	STATUSEF	
SERD DATE OF INITIAL SUBMISSION		071	INTSUBEF	
SERD DATE OF GOVERNMENT DISPOSITION	G	071	DTGVDSEF	
SERD DATE OF REVISION SUBMISSION		071	DTRVSBEF	
TABLE EG: SUPPORT EQUIPMENT RECOMMENDATION DATA REVISION REMARKS				
SERD REVISION REMARKS		417	REVREMEG	
TABLE EH: ALTERNATE NATIONAL STOCK NUMBER				
ALTERNATE NATIONAL STOCK NUMBER	K	253	-----	
TABLE EI: INPUT POWER SOURCE				
INPUT POWER SOURCE	K	168	-----	
TABLE EJ: SUPPORT EQUIPMENT DESIGN DATA				
DESIGN DATA CATEGORY CODE (DDCC)	K	079	DSNDATEJ	
DDCC CONTRACTOR RECOMMENDED		057	CNTRECEJ	
DDCC ESTIMATED PRICE		101	ESTPRCEJ	
DDCC GOVERNMENT REQUIRED		150	GOVRQDEJ	
DDCC SCOPE		365	DDCCSCEJ	
TABLE EK: SUPERCEDURE DATA				
SE SUPERCEDURE CAGE CODE	F	046	SPRCAGEK	
SE SUPERCEDURE REFERENCE NUMBER	F	337	SPRREFEK	
SE SUPERCEDURE TYPE	M	408	SUTYPEEK	
SE SUPERCEDURE ITEM NAME		182	SUPITNEK	
SE SUPERCEDURE SERD NUMBER		416	SUSRNOEK	
REASON FOR SUPERCEDURE/DELETION		327	REASUPEK	
SUPERCEDURE INTERCHANGEABILITY CODE		172	ICCODEEK	
TABLE EL: SUPPORT EQUIPMENT INTEGRATED LOGISTIC SUPPORT REQUIREMENT CATEGORY CODE				
INTEGRATED LOGISTIC SUPPORT REQUIREMENTS CATEGORY CODE (IRCC)	K	171	IRCCODEL	
IRCC CONTRACTOR RECOMMENDED		057	CONRECEL	
IRCC ESTIMATED PRICE		101	ESTPRCEL	

Data Element	Key	DED	DE CODE	Required
IRCC GOVERNMENT REQUIRED		150	GOVRQDEL	
IRCC SCOPE		365	IRCSCOEL	
TABLE EM: SYSTEM EQUIPMENT				
SYSTEM CAGE CODE	F	046	SCAGECEM	
SYSTEM REFERENCE NUMBER	F	337	SREFNOEM	
SYSTEM EQUIPMENT QUANTITY PER TEST		320	QTYTSTEM	
SYSTEM EQUIPMENT ITEM DESIGNATOR		179	GFAEIDEM	
UNIT UNDER TEST REQUIREMENTS AND DESCRIPTION				
TABLE UA: ARTICLE REQUIRING SUPPORT/UNIT UNDER TEST				
END ITEM ACRONYM CODE (EIAC)	F	096	EIACODXA	
UUTLSA CONTROL NUMBER (LCN)	F	199	UUTLCNUA	
UUT ALTERNATE LCN CODE	F	019	UUTALCUA	
UUT LCN TYPE	F	203	UTLCNTUA	
UUT ALLOWANCE		016	UTALLOUA	
UUT MAINTENANCE PLAN NUMBER	G	209	UMNTPLUA	
UUT TEST REQUIREMENTS DOCUMENT NUMBER		448	UTTRDNUA	
UUT WORK PACKAGE REFERENCE		515	UTWPRFUA	
TABLE UB: UNIT UNDER TEST SUPPORT EQUIPMENT				
SUPPORT EQUIPMENT (SE) CAGE CODE	F	046	SECAGEEA	
SE REFERENCE NUMBER	F	337	SEREFNEA	
UUT CALIBRATION/MEASUREMENT REQUIREMENT SUMMARY (CMRS) STATUS		036	UTSTCDUB	
UUT CMRS RECOMMENDED CODE		035	UTCMRSUB	
TABLE UC: OPERATIONAL TEST PROGRAM				
OPERATIONAL TEST PROGRAM (OTP) CAGE CODE	F	046	OTPCAGUC	
OTP REFERENCE NUMBER	F	337	OTPREFUC	
OTP APPORTIONED UNIT COST		025	-----	
OTP COORDINATED TEST PLAN		060	OTPCTPUC	
OTP STANDARDS FOR COMPARISON		402	OTPSFCUC	
OTP SUPPORT EQUIPMENT RECOMMENDATION DATA NUMBER		416	OTPSRDUC	
TABLE UD: UNIT UNDER TEST SUPPORT EQUIPMENT OPERATIONAL TEST PROGRAM				
SELECT TABLE UD				
TABLE UE: TEST PROGRAM INSTRUCTION				
TEST PROGRAM INSTRUCTION (TPI) CAGE CODE	F	046	TPICAGUE	
TPI REFERENCE NUMBER	F	337	TPIREFUE	
TPI APPORTIONED UNIT COST		025	-----	
TPI SELF TEST		370	TPISTSUE	
TPI TECHNICAL DATA PACKAGE		434	TPITDPUE	
TPI SUPPORT EQUIPMENT RECOMMENDATION DATA NUMBER		416	TPISRDUE	
TABLE UF: UNIT UNDER TEST EXPLANATION				
UUT EXPLANATION		498	UTEXPLUF	
TABLE UG: UNIT UNDER TEST PARAMETER GROUP				
UUT CMRS PARAMETER CODE	K	034	UUTPPCUG	

Data Element	Key	DED	DE CODE	Required
UUT PARAMETERS		284	-----	
UUT PARAMETER TEST ACCURACY RATIO		442	-----	
TABLE UH: UNIT UNDER TEST FAULT ISOLATED REPLACEABLE UNIT				
TASKLSA CONTROL NUMBER (LCN)	F	199	TSKLCNCI	
TASK ALTERNATE LCN CODE (ALC)	F	019	TSKALCCI	
TASK LCN TYPE	F	203	TSKLTYCI	
TASK PROVISION TASK CODE	F	427	TSKTCDCI	
TASK PROVISION LCN	F	199	PROLCNCI	
TASK PROVISION ALC	F	019	PROALCCI	
TASK PROVISION LCN TYPE	F	203	PROLTYCI	
TASK PROVISION CAGE CODE	F	046	PROCAGCI	
TASK PROVISION REFERENCE NUMBER	F	337	PROREFCI	
SUPPORT EQUIPMENT (SE) CAGE CODE	M	046	SECAGEEA	
SE REFERENCE NUMBER	M	337	SEREFNEA	
UUT FIRU FAULT ISOLATION		143	-----	
UUT FIRU TEST REQUIREMENTS DOCUMENT INDICATOR		447	UUTFTDUH	
TABLE UI: ADAPTOR INTERCONNECTOR DEVICE				
ADAPTOR INTERCONNECTOR DEVICE (AID) CAGE CODE	F	046	AIDCAGUI	
AID REFERENCE NUMBER	F	337	AIDREFUI	
AID APPORTIONED UNIT COST		025	-----	
AID SERD NUMBER		416	AIDSRDUI	
AID COMMON UNIT UNDER TEST		048	AIDCUTUI	
TABLE UJ: UNIT UNDER TEST SUPPORT EQUIPMENT ADAPTOR INTERCONNECTOR DEVICE				
SELECT TABLE UJ				
TABLE UK: AUTOMATIC TEST EQUIPMENT TEST STATION				
AUTOMATIC TEST EQUIPMENT (ATE) CAGE CODE	F	046	ATECAGUK	
ATE REFERENCE NUMBER	F	337	ATEREFUK	
ATE GOVERNMENT DESIGNATOR		149	ATEGDSUK	
TABLE UL: UNIT UNDER TEST SUPPORT EQUIPMENT AUTOMATIC TEST EQUIPMENT				
SELECT TABLE UL				
TABLE UM: SUPPORT EQUIPMENT ITEM UNIT UNDER TEST				
SE UNIT UNDER TEST (SE UUT) CAGE CODE	F	046	SUTCAGUM	
SE UUT REFERENCE NUMBER	F	337	SUTREFUM	
SE UUT ALLOWANCE		016	SUTALLUM	
SE UUT CMRS STATUS		036	SUTSTCUM	
SE UUT MAINTENANCE PLAN NUMBER		209	MNTPLNUM	
SE UUT TEST REQUIREMENTS DOCUMENT NUMBER		448	TRDNUMUM	
SE UUT WORK PACKAGE REFERENCE		515	WKPKRFUM	
TABLE UN: SUPPORT EQUIPMENT UNIT UNDER TEST PARAMETER GROUP				
SE UUT PARAMETERS	K	284	-----	
SE UUT CMRS PARAMETER CODE		034	UTPACMUN	
SE UUT PARAMETER TEST ACCURACY RATIO		442	-----	

Data Element	Key	DED	DE CODE	Required
FACILITIES CONSIDERATIONS				
TABLE FA: FACILITY				
FACILITY NAME	K	118	FACNAMFA	
FACILITY CATEGORY CODE	K	115	FACCCDFA	
FACILITY TYPE	K	483	FACTYPFA	
FACILITY CLASS		116	FACCLAFA	
FACILITY DRAWING CLASSIFICATION		088	DRCLASFA	
FACILITY DRAWING NUMBER		089	FADNUMFA	
FACILITY DRAWING REVISION		360	FADREVFA	
FACILITY AREA		112	FAAREAFA	
FACILITY AREA UNIT OF MEASURE		491	FAARUMFA	
FACILITY CONSTRUCTION UNIT OF MEASURE PRICE		492	FACNCOFA	
CONSTRUCTION UNIT OF MEASURE		491	CONUOMFA	
TABLE FB: FACILITY NARRATIVE				
FACILITY NARRATIVE CODE	K	119	FNCODEFB	
FACILITY CAPABILITY		114		
FACILITY LOCATION		117		
TABLE FC: BASELINE FACILITY NARRATIVE				
BASELINE FACILITY NARRATIVE CODE	K	113	FBNACDFC	
FACILITIES MAINTENANCE REQUIREMENTS		107		
FACILITIES REQUIREMENTS FOR OPERATIONS		109		
FACILITIES REQUIREMENT FOR TRAINING		110		
FACILITY REQUIREMENTS SPECIAL CONSIDERATIONS		120		
FACILITY REQUIREMENTS SUPPLY/STORAGE		121		
TABLE FD: NEW OR MODIFIED FACILITY NARRATIVE				
NEW OR MODIFIED FACILITY NARRATIVE CODE	K	255	NMFNCDFD	
FACILITY DESIGN CRITERIA		105		
FACILITY INSTALLATION LEAD TIME		106		
FACILITY TASK AREA BREAKDOWN		122		
FACILITIES UTILIZATION		111		
FACILITIES REQUIREMENTS		108		
FACILITY UNIT COST RATIONALE		123		
FACILITY JUSTIFICATION		188		
TYPE OF CONSTRUCTION		482		
UTILITIES REQUIREMENT		502		
TABLE FE: OPERATIONS AND MAINTENANCE TASK FACILITY REQUIREMENT				
END ITEM ACRONYM CODE	F	096	EIACODXA	
LSA CONTROL NUMBER (LCN)	F	199	LSACONXB	
ALTERNATE LCN CODE	F	019	ALTLCNXB	
LCN TYPE	F	203	LCNTYPXB	
TASK CODE	F	427	TASKCDCA	

Data Element	Key	DED	DE CODE	Required
PERSONNEL SKILL CONSIDERATIONS				
TABLE GA: SKILL SPECIALTY				
SKILL SPECIALTY CODE	K	387	SKSPCDGA	
SKILL LEVEL CODE		386	SKLVCDGA	
HOUR LABOUR RATE		161	HRLARTGA	
TRAINING COST		460	TRNCOSGA	
TABLE GB: NEW OR MODIFIED SKILL				
NEW OR MODIFIED SKILL SPECIALTY CODE	K	257	MDCSSCGB	
NEW OR MODIFIED SKILL LEVEL CODE		386	MDSCLCGB	
SKILL SPECIALTY CODE		387	SKSPCDGA	
DUTY POSITION REQUIRING A NEW OR REVISED SKILL		092	DPRNRSGB	
RECOMMENDED RANK/RATE/PAY PLAN/GRADE		330	-----	
SECURITY CLEARANCE REQUIRED		369	SCRSSCGB	
TEST SCORE		449	SSCTESGB	
ARMED SERVICES VOCATIONAL APTITUDE BATTERY (ASVAB) ARMED FORCES		026	ABAFQTGB	
QUALIFICATION TEST (AFQT) SCORE				
ASVAB AFQT EXPECTED RANGE		026	-----	
ASVAB AFQT LOWEST PERCENTAGE		026	-----	
TABLE GC: NEW OR MODIFIED SKILL NARRATIVE				
NEW OR MODIFIED SKILL NARRATIVE CODE	K	256	NMSNCDGC	
NEW OR MODIFIED SKILL ADDITIONAL REQUIREMENTS		007		
EDUCATIONAL QUALIFICATIONS		094		
SKILL JUSTIFICATION		188		
ADDITIONAL TRAINING REQUIREMENTS		012		
TABLE GD: SKILL APTITUDE DATA				
ASVAB APTITUDE ELEMENT	K	026	ASVAPEGD	
ASVAB APTITUDE ELEMENT EXPECTED RANGE		026	-----	
ASVAB APTITUDE ELEMENT LOWEST PERCENTAGE		026	-----	
TABLE GE: PHYSICAL AND MENTAL REQUIREMENTS NARRATIVE				
END ITEM ACRONYM CODE (EIAC)	F	096	EIACODXA	
LSA CONTROL NUMBER (LCN)	F	199	LSACONXB	
ALTERNATE LCN CODE	F	019	ALTLCNXB	
LCN TYPE	F	203	LCNTYPXB	
TASK CODE	F	427	TASKCDCA	
SUBTASK NUMBER	F	407	SUBNUMCB	
SUBTASK PERSON IDENTIFIER	F	288	SUBPIDCD	
PHYSICAL AND MENTAL REQUIREMENTS NARRATIVE		290	PAMENRGE	
PACKAGING AND PROVISIONING REQUIREMENTS				
TABLE HA: ITEM IDENTIFICATION				
COMMERCIAL AND GOVERNMENT ENTITY (CAGE) CODE	F	046	CAGECDXH	
REFERENCE NUMBER	K	337	REFNUMHA	
ITEM NAME		182	ITNAMEHA	

Data Element	Key	DED	DE CODE	Required
ITEM NAME CODE		183	INAMECHA	
REFERENCE NUMBER CATEGORY CODE		338	REFNCCHA	
REFERENCE NUMBER VARIATION CODE		339	REFNVCHA	
DLSC SCREENING REQUIREMENT CODE		073	DLSCRCHA	
DOCUMENT IDENTIFIER CODE		087	DOCIDCHA	
ITEM MANAGEMENT CODE		181	ITMMGCHA	
NSN PREFIX		253	-----	
NATIONAL STOCK NUMBER (NSN)		253	-----	
NSN SUFFIX		253	-----	
UNIT OF ISSUE CONVERSION FACTOR (UI CONVERSION FACTOR)		489	UICONVHA	
SHELF LIFE (SL)		377	SHLIFEHA	
SHELF LIFE ACTION CODE (SLAC)		378	SLACTNHA	
PROGRAM PARTS SELECTION LIST		302	PPSLSTHA	
DOCUMENT AVAILABILITY CODE		086	DOCAVCHA	
PRODUCTION LEAD TIME		299	PRDLDTHA	
SPECIAL MATERIAL CONTENTS CODE (SMCC)		395	SPMACCHA	
SPECIAL MAINTENANCE ITEM CODE (SMIC)		392	SMAINCHA	
CRITICALITY CODE		066	CRITCDHA	
PRECIOUS METAL INDICATOR CODE		293	PMICODHA	
SPARES ACQUISITION INTEGRATED WITH PRODUCTION (SAIP)		391	SAIPCDHA	
PROVISIONING LIST CATEGORY CODE		308	-----	
PHYSICAL SECURITY PILFERAGE CODE		291	PHYSECHA	
ADP EQUIPMENT CODE		027	ADPEQPHA	
DEMILITARIZATION CODE		076	DEMILIHA	
ACQUISITION METHOD CODE	G	003	ACQMETHA	
ACQUISITION METHOD SUFFIX CODE	G	004	AMSUFCHA	
HAZARDOUS MATERIALS STORAGE COST		156	HMSCOSHA	
HAZARDOUS WASTE DISPOSAL COST		157	HWDCOSHA	
HAZARDOUS WASTE STORAGE COST		158	HWSCOSHA	
CONTRACTOR TECHNICAL INFORMATION CODE		058	CTICODHA	
UNIT WEIGHT		497	UWEIGHHA	
UNIT SIZE		496	-----	
HAZARDOUS CODE		154	HAZCODHA	
UNIT OF MEASURE		491	UNITMSHA	
UNIT OF ISSUE (UI)		488	UNITISHA	
LINE ITEM NUMBER		193	LINNUMHA	
CRITICAL ITEM CODE		065	CRITITHA	
INDUSTRIAL MATERIALS ANALYSIS OF CAPACITY		163	INDMATHA	
MATERIAL LEADTIME		219	MTLEADHA	
MATERIAL WEIGHT		220	MTLWGTHA	
MATERIAL		218	MATERLHA	

Data Element	Key	DED	DE CODE	Required
TABLE HB: ADDITIONAL REFERENCE NUMBER				
ARN CAGE CODE	F	46	ADCAGEHB	
ADDITIONAL REFERENCE NUMBER	K	006	ADDREFHB	
ARN REFERENCE NUMBER CATEGORY CODE		338	ADRNCCHB	
ARN REFERENCE NUMBER VARIATION CODE		339	ADRNVCHB	
TABLE HC: CONTRACTOR TECHNICAL INFORMATION CODE (CTIC) CAGE				
CTIC CAGE CODE	F	046	CTCAGEHC	
TABLE HD: ITEM UNIT OF ISSUE PRICE				
UNIT OF ISSUE PRICE (UI PRICE)	K	490	UIPRICHD	
UI PRICE LOT QUANTITY		205	-----	
UI PRICE CONCURRENT PRODUCTION CODE		051	CURPRCHD	
UI PRICE TYPE OF PRICE CODE		485	TUIPRCHD	
UI PRICE PROVISIONING		314	PROUIPHD	
UI PRICE FISCAL YEAR		145	FISCYRHD	
TABLE HE: ITEM UNIT OF MEASURE PRICE				
UNIT OF MEASURE (UM) PRICE	K	492	UMPRICHE	
UM PRICE LOT QUANTITY		205	-----	
UM PRICE CONCURRENT PRODUCTION CODE		051	CURPRCHE	
UM PRICE TYPE OF PRICE CODE		485	TUMPRCHE	
UM PRICE PROVISIONING		314	PROUMPHE	
UM PRICE FISCAL YEAR		145	FISCYRHE	
TABLE HF: ITEM PACKAGING REQUIREMENT				
COMMERCIAL AND GOVERNMENT ENTITY (CAGE) CODE	F	046	CAGECDXH	
REFERENCE NUMBER	F	337	REFNUMHA	
DEGREE OF PROTECTION CODE	K	074	DEGPROHF	
UNIT CONTAINER CODE		486	UNICONHF	
UNIT CONTAINER LEVEL		487	UCLEVLHF	
PACKING CODE		283	PKGCODHF	
PACKAGING CATEGORY CODE		282	PACCATHF	
METHOD OF PRESERVATION CODE		239	MEPRESHF	
CLEANING AND DRYING PROCEDURES		045	CDPROCHF	
PRESERVATION MATERIAL CODE		295	PRSMATHF	
WRAPPING MATERIAL		517	WRAPMTHF	
CUSHIONING AND DUNNAGE MATERIAL		067	CUSHMAHF	
CUSHIONING THICKNESS		068	CUSTHIHF	
QUANTITY PER UNIT PACK		321	QTYUPKHF	
INTERMEDIATE CONTAINER CODE		174	INTCONHF	
INTERMEDIATE CONTAINER QUANTITY		175	INCQTYHF	
SPECIAL MARKING CODE		394	SPEMRKHF	
UNIT PACK WEIGHT		495	UNPKWTHF	
UNIT PACK SIZE		494	-----	
UNIT PACK CUBE		493	UNPKCUHF	

Data Element	Key	DED	DE CODE	Required
OPTIONAL PROCEDURES INDICATOR		279	OPTPRIHF	
SPECIAL PACKAGING INSTRUCTIONS (SPI) NUMBER		396	SPINUMHF	
SPI NUMBER REVISION		397	SPIREVHF	
SPI NUMBER JULIAN DATE		187	SPDATEHF	
CONTAINER NSN		253	CONNSNHF	
SUPPLEMENTAL PACKAGING DATA		409	SUPPKDHF	
PACKAGING DATA PREPARER CAGE		046	PKCAGEHF	
TABLE HG: PART APPLICATION PROVISIONING				
END ITEM ACRONYM CODE (EIAC)	F	096	EIACODXA	
LSA CONTROL NUMBER (LCN)	F	199	LSACONXB	
ALTERNATE LCN CODE	F	019	ALTLCNXB	
LCN TYPE	F	203	LCNTYPXB	
PROVISIONING LIST ITEM SEQUENCE NUMBER (PLISN)		309	PLISNOHG	
QUANTITY PER ASSEMBLY		316	QTYASYHG	
OPTION 1				
OPTION 2	N			
OPTION 3				
SUPPRESSION INDICATOR		422	SUPINDHG	
DATA STATUS CODE		070	DATASCHG	
PROVISIONING SYSTEM IDENTIFIER CODE	C	312	PROSICHG	
PTD SELECTION CODE		313	-----	
TYPE OF CHANGE CODE (TOCC)		481	TOCCODHG	
INDENTURE CODE		162	INDCODHG	
ATTACHING PART/HARDWARE				
OPTION 1				
OPTION 2				
OPTION 3				
OPTION 4				
OPTION 5				
INDENTURE FOR KITS				
OPTION 1				
OPTION 2				
OPTION 3				
QUANTITY PER END ITEM		317	QTYPEIHG	
OPTION 1				
OPTION 2	N			
OPTION 3	C			
PRIOR ITEM PLISN		297	PIPLISHG	
SAME AS PLISN		364	SAPLISHG	
HARDNESS CRITICAL ITEM		151	HARDCIHG	
REMAIN IN PLACE INDICATOR		348	REMIPIHG	
LINE REPLACEABLE UNIT (LRU)		194	LRUNITHG	

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Data Element	Key	DED	DE CODE	Required
ITEM CATEGORY CODE (ICC)		177	ITMCATHG	
ESSENTIALITY CODE		100	ESSCODHG	
SOURCE, MAINTENANCE AND RECOVERABILITY CODE		389	SMRCODHG	
MAINTENANCE REPLACEMENT RATE I (MRRI)		211	MRRONEHG	
MAINTENANCE REPLACEMENT RATE II (MRRII)		212	MRRTWOHG	
OPTION 1				
OPTION 2				
MAINTENANCE REPLACEMENT RATE MODIFIER	A	213	MRRMODHG	
REPLACEMENT TASK DISTRIBUTION		355	-----	
MINIMUM REPLACEMENT UNIT		245	MINREUHG	
MAXIMUM ALLOWABLE OPERATING TIME (MAOT)		221	MAOTIMHG	
MAINTENANCE ACTION CODE (MAC)		206	MAIACTHG	
RECOMMENDED INITIAL SYSTEM STOCK BUY		328	RISSBUHG	
RECOMMENDED MINIMUM SYSTEM STOCK LEVEL		329	RMSSLIHG	
RECOMMENDED TENDER LOAD LIST QUANTITY	N	331	RTLLQTHG	
TOTAL QUANTITY RECOMMENDED		453	TOTQTYHG	
MAINTENANCE TASK DISTRIBUTION		214	-----	
REPAIR CYCLE TIME		350	-----	
OPTION 1				
OPTION 2				
NOT REPAIRABLE THIS STATION	R	261	NORETSHG	
REPAIR SURVIVAL RATE (RSR)		351	REPSURHG	
DESIGNATED REWORK POINT		081	-----	
WORK UNIT CODE		516	WRKUCDHG	
ALLOWANCE ITEM CODE		017	ALLOWCHG	
ALLOWANCE ITEM QUANTITY		018	ALIQTYHG	
TABLE HH: OVERHAUL-KIT NEXT HIGHER ASSEMBLY PLISN				
NEXT HIGHER ASSEMBLY (NHA) PROVISIONING LIST ITEM SEQUENCE NUMBER	K	258	NHAPLIHH	
(PLISN)				
NHA PLISN INDICATOR		259	NHAINDHH	
OVERHAUL REPLACEMENT RATE		281	OVHREPHH	
TABLE HI: PROVISIONING REMARK				
PROVISIONING REMARKS		311	REMARKHI	
TABLE HJ: PROVISIONING REFERENCE DESIGNATION				
REFERENCE DESIGNATION	K	335	REFDESHJ	
OPTION 1				
OPTION 2				
OPTION 3				
OPTION 4				
OPTION 5				
REFERENCE DESIGNATION CODE		336	RDCODEHJ	
TECHNICAL MANUAL (TM) CODE		437	TMCODEXI	

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Data Element	Key	DED	DE CODE	Required
FIGURE NUMBER		144	FIGNUMHK	
ITEM NUMBER		184	ITEMNOHK	
TABLE HK: PARTS MANUAL DESCRIPTION				
TECHNICAL MANUAL (TM) CODE	F	437	TMCODEXI	
FIGURE NUMBER	K	144	FIGNUMHK	
ITEM NUMBER	K	184	ITEMNOHK	
TM FUNCTIONAL GROUP CODE (REPAIR PARTS MANUAL)		438	TMFGCDHK	
TECHNICAL MANUAL INDENTURE CODE		439	TMINDCHK	
QUANTITY PER FIGURE		318	QTYFIGHK	
TECHNICAL MANUAL CHANGE NUMBER		436	TMCHGNHK	
TABLE HL: PARTS MANUAL PROVISIONING NOMENCLATURE				
PROVISIONING NOMENCLATURE		310	PROVNOHL	
TABLE HM: ITEM BASIS OF ISSUE				
BASIS OF ISSUE	K	030	-----	
TABLE HN: PROVISIONING SERIAL NUMBER USABLE ON CODE				
S/N PROVISIONING SYSTEM/EI LCN	F	199	LCNSEIHN	
S/N PROVISIONING SYSTEM/EI ALC	F	019	ALCSEIHN	
S/N PROVISIONING SERIAL NUMBER	F	373	-----	
TABLE HO: PROVISIONING SYSTEM/END ITEM USABLE ON CODE				
UOC PROVISIONING SYSTEM/EI LCN	F	199	LCNSEIHO	
UOC PROVISIONING SYSTEM/EI ALC	F	019	ALCSEIHO	
TABLE HP: DESIGN CHANGE INFORMATION				
CHANGE AUTHORITY NUMBER	K	043	CANUMBHP	
REPLACED OR SUPERSEDING (R-S) PROVISIONING LIST ITEM SEQUENCE NUMBER (PLISN)		353	RSPLISHP	
R-S PLISN INDICATOR		354	RSPINDHP	
INTERCHANGEABILITY CODE		172	INTCHCHP	
TOTAL ITEM CHANGES		452	TOTICHHP	
OPTION 1				
OPTION 2				
QUANTITY SHIPPED		323	QTYSHPHP	
QUANTITY PROCURED		322	QTYPROHP	
PRORATED EXHIBIT LINE ITEM NUMBER (ELIN)		305	PROELIHP	
PRORATED QUANTITY		306	PROQTYHP	
TABLE HQ: SERIAL NUMBER EFFECTIVITY				
SERIAL NUMBER EFFECTIVITY	K	374	-----	
TABLE HR: DESIGN CHANGE USABLE ON CODE				
SELECT TABLE HR				
TRANSPORTABILITY ENGINEERING ANALYSIS				
TABLE JA: TRANSPORTATION				
END ITEM ACRONYM CODE (EIAC)	F	096	EIACODXA	
LSA CONTROL NUMBER (LCN)	F	199	LSACONXB	
ALTERNATE LCN CODE	F	019	ALTLCNXB	

Data Element	Key	DED	DE CODE	Required
LCN TYPE	F	203	LCNTYPXB	
TRANSPORTATION INDICATOR		468	TRNINDJA	
SECTIONALIZED IDENTIFICATION		366	SECTIDJA	
ENVIRONMENTAL HANDLING AND TRANSPORTATION INDICATOR		098	ENHATCJA	
DELIVERY SCHEDULE		075	DELSCHJA	
TRANSPORTATION CONTRACT NUMBER		055	CONNUMJA	
PROPER SHIPPING NAME		304	PROPSNJA	
SPEED		400	SPSPEDJA	
TOWING SPEED		455	TWSPEDJA	
MILITARY UNIT TYPE		242	MILUNTJA	
REVISION DATE		071	TRCHRDJA	
THEATRE OF OPERATION		451	TRCHTHJA	
NONOPERABILITY FRAGILITY FACTOR		260	NOPRFFJA	
NET EXPLOSIVE WEIGHT		254	NETEXWJA	
TABLE JB: TRANSPORTATION SHIPPING MODES				
TRANSPORTATION CHARACTER NUMBER	K	465	TRANCNJB	
TRANSPORTATION CHARACTER MODE TYPE	K	464	TRCHMTJB	
TRANSPORTATION ITEM DESIGNATOR		469	TRITDRJB	
SHIPPING CONFIGURATION		380	SHPCONJB	
CONTAINER LENGTH		053	CONLENJB	
CONTAINER TYPE		054	CONTYPJB	
FREIGHT CLASSIFICATION		146	FRCLASJB	
EXTERNAL OR INTERNAL LOAD INDICATOR		104	EOILINJB	
HELICOPTER MISSION		159	-----	
HIGHWAY MODEL LOAD		250	-----	
HIGHWAY MODEL TYPE		251	-----	
RAIL USE		326	RAILUSJB	
RAIL TRANSPORTATION COUNTRY		325	RAILTCJB	
SEA DECK STOWAGE		072	SDECKSJB	
TABLE JC: TRANSPORTED END ITEM				
TRANSPORTED CONFIGURATION NUMBER	K	473	TRCONMJC	
MOBILITY TYPE	K	249	MOBTYPJC	
OPERATIONAL WEIGHT EMPTY/LOADED		276	-----	
MILITARY LOAD CLASSIFICATION EMPTY/LOADED		241	-----	
SHIPPING WEIGHT EMPTY/LOADED		381	-----	
CREST ANGLE		063	CREANGJC	
TRACKED GROUND PRESSURE		456	TRGRPRJC	
TRACKED ROAD WHEEL WEIGHT		459	TRRWWTJC	
TRACKED PADS TOUCHING		458	TRNUPTJC	
TRACKED PAD SHOE AREA		457	TRPSARJC	
WHEELED INFLATION PRESSURE		507	WHINPRJC	
WHEELED NUMBER OF PLIES		508	WHNUPLJC	

Data Element	Key	DED	DE CODE	Required
WHEELED NUMBER TIRES		509	WHNUTIJC	
WHEELED TIRE LOAD RATINGS		510	WHTLDRJC	
WHEELED TIRE SIZE		512	WHTIFTJC	
WHEELED WEIGHT RATINGS		513	WHWERAJC	
AXLE LENGTH		029	-----	
SKID NUMBER OF SKIDS		264	SNUMSKJC	
SKID AREA		384	SDSICGJC	
TABLE JD: TRANSPORTED END ITEM NARRATIVE				
TRANSPORTED END ITEM NARRATIVE CODE	K	474	TREINCJD	
WHEELED TIRE REQUIREMENTS		511		
SKID REMARKS		385		
TURNING INFORMATION		477		
WHEELED AXLE AND SUSPENSION REMARKS		506		
TRANSPORTED OTHER EQUIPMENT		475		
TABLE JE: TRANSPORT BY FISCAL YEAR				
TRANSPORT FISCAL YEAR	K	145	TRAFYRJE	
FIRST QUARTER PROCUREMENT QUANTITY		298	FIQPQTJE	
SECOND QUARTER PROCUREMENT QUANTITY		298	SQPQTYJE	
THIRD QUARTER PROCUREMENT QUANTITY		298	TQPQTYJE	
FOURTH QUARTER PROCUREMENT QUANTITY		298	FQPQTYJE	
TABLE JF: TRANSPORTATION NARRATIVE				
TRANSPORTATION NARRATIVE CODE	K	470	TRANCDJF	
TRANSPORTATION SHOCK VIBRATION REMARKS		382		
LIFTING AND TIEDOWN REMARKS		192		
TRANSPORTATION PROJECTION REMARKS		471		
REGULATORY REQUIREMENTS		340		
TRANSPORTATION REMARKS		472		
SPECIALISED SERVICE AND EQUIPMENT		398		
SECTIONALIZED REMARKS		368		
TRANSPORTED TO AND FROM		476		
ENVIRONMENTAL/HAZARDOUS MATERIALS CONSIDERATIONS		099		
MILITARY DISTANCE CLASSIFICATION		240		
UNUSUAL AND SPECIAL REQUIREMENTS		500		
VENTING AND PROTECTIVE CLOTHING		504		
DISASTER RESPONSE FORCE REQUIREMENTS		082		
AUSTRALIAN DEFENCE ORGANISATION M TABLES				
TABLE MA: TASK ID EXTENDED MEMO				
NARRATIVE - TASK		944	NARRATMA	
TABLE MB: SKILL SPECIALITY CODE EXTENDED MEMO				
NARRATIVE - MAINTENANCE POLICY TRADE SKILL		945	NARRATMB	
TABLE MC: TASK INTERVAL EXTENDED MEMO				

Data Element	Key	DED	DE CODE	Required
NARRATIVE - TASK INTERVAL		946	NARRATMC	
TABLE MD: TASK FACILITY EXTENDED MEMO				
NARRATIVE - TASK FACILITY		947	NARRATMD	
TABLE ME: LCN ITEM EXTENDED MEMO				
NARRATIVE - LCN ITEM		948	NARRATME	
TABLE MF: SERVICING EXTENDED MEMO				
NARRATIVE - SERVICING		949	NARRATMF	
AUSTRALIAN DEFENCE ORGANISATION R TABLES				
TABLE RA: WORK AREA CODE LIBRARY				
END ITEM ACRONYM CODE (EIAC)	F	096	EIACODXA	
LSA CONTROL NUMBER (LCN)	F	199	LSACONXB	
ALTERNATE LCN CODE	F	019	ALTLCNXB	
LCN TYPE	F	203	LCNTYPXB	
WORK AREA CODE	K	940	WACODERA	
WORK AREA CODE NAME		997	WACNAMRA	
WORK AREA CLASSIFICATION		812	INTEXTRA	
ENVIRONMENTAL DAMAGE RATING		814	ENVDAMRA	
ACCIDENTAL DAMAGE RATING		816	ACCDAMRA	
INSPECTABILITY RATING		815	INSPECRA	
OVERALL WORK AREA ASSESSMENT		817	WAASSMRA	
WORK AREA EQUIPMENT INSTALLED		818	EQINSTRA	
TABLE RB: WORK AREA CODE DESCRIPTION				
WAC DESCRIPTION TEXT SEQUENCING CODE	K	450	TEXSEQRB	
WORK AREA CODE DESCRIPTION		---	WACDESRB	
WORK AREA NARRATIVE CODE	K	819	WANCODRB	
TABLE RC: INITIATING TYPES LIBRARY				
INITIATING TYPE	K	915	INTTYPRC	
INITIATING TYPE DESCRIPTION		916	TYPDESRC	
TABLE RD: TASK INITIATING CONDITIONS ASSIGNMENTS				
INITIATING MODE	K	914	INTMODRD	
INITIATING CONDITION SEQUENCE NUMBER	K	912	ICSQNMRD	
INITIATING INSTANCE		913	ININSTRD	
INITIATING LCN		199	INTLCNRD	
INITIATING ALC		019	INTALCRD	
INITIATING LCN TYPE		203	INTLTYRD	
INITIATING INTERVAL		937	ININTVRD	
INITIATING EVENT MEASUREMENT BASE		923	INEVNTRD	
TABLE RE: SERVICING INITIATING CONDITIONS ASSIGNMENTS				
SERVICING INITIATING MODE	K	914	INTMODRE	
SERVICING INITIATING CONDITION SEQUENCE NUMBER	K	912	ICSQNMRE	
SERVICING INITIATING INSTANCE		913	ININSTRE	
SERVICING INITIATING LCN		199	INTLCNRE	

Data Element	Key	DED	DE CODE	Required
SERVICING INITIATING ALC		019	INTALCRE	
SERVICING INITIATING LCN TYPE		203	INTLTYRE	
SERVICING INITIATING INTERVAL		937	ININTVRE	
SERVICING INITIATING EVENT MEASUREMENT BASE		923	INEVNTRE	
TABLE RF: SERVICING CLAIMED ACTIVITIES ASSIGNMENTS				
SELECT TABLE RF				
TABLE RG: TASK CLAIMED ACTIVITIES ASSIGNMENTS				
SELECT TABLE RG				
TABLE RI: REFERENCED FAILURE MODES				
SELECT TABLE RI				
TABLE RJ: LCN LOG REQUIREMENTS				
LOG REQUIREMENT	K	926	LCNLOGRJ	
TABLE RL: MAINTENANCE POLICY TASK CROSS REFERENCE				
SELECT TABLE RL				
TABLE RM: MAINTENANCE POLICY TRADES				
SELECT TABLE RM				
TABLE RN: SERVICING SUBTASKS				
SERVICING SUBTASK NUMBER	K	407	SUBNUMRN	
SERVICING SUBTASK IDENTIFICATION		431	SUBTIDRN	
SUBTASK CERTIFICATION REQUIREMENT		968	SCRTRQRN	
TABLE RO: SERVICING SUBTASK NARRATIVE				
SERVICING SUBTASK NARRATIVE		372	SUBNARRO	
ELEMENT INDICATOR		095	ELEMNTRO	
TABLE RP: SERVICING SUBTASK CROSS REFERENCE				
SELECT TABLE RP				
TABLE RQ: RCM LOGIC DISPOSITION CODE LIBRARY				
RCM LOGIC DISPOSITION CODE	K	807	RCMDISRQ	
DISPOSITION CODE DESCRIPTION		802	DSCDESRQ	
TABLE RR: LCN/ALC RCM LOGIC USED AND ANALYSIS STATUS				
RCM ANALYSIS STATUS		803	RCMSTSRR	
RCM ANALYSIS STATUS DATE/TIME		809	RCMDTERR	
TABLE RS: LCN/ALC RCM ANALYSIS RESULTS				
RCM LOGIC RESULT		804	RCMRSTRS	
TABLE RT: LCN/ALC RCM ANALYSIS JUSTIFICATION				
TEXT SEQUENCE NUMBER		450	TXTSEQRT	
RCM JUSTIFICATION NARRATIVE		805	RCMJSTRT	
TABLE RU: RCM LOGIC QUESTION DEFINITION				
TEXT SEQUENCE NUMBER	K	450	TXTSEQRU	
RCM QUESTION		806	RCMQSTRU	
TABLE RV: RCM LOGICS LIBRARY				
RCM LOGIC NAME	K	345	RCMLOGRV	
RCM LOGIC DESCRIPTION		800	RCMDESRV	

Data Element	Key	DED	DE CODE	Required
TABLE RW: RCM LOGIC DEFINITION				
RCM QUESTION NUMBER	K	801	RCMQNMRW	
AFFIRMATIVE QUESTION NUMBER		802	AFQNUMRW	
AFFIRMATIVE DISPOSITION CODE		084	AFDISCRW	
AFFIRMATIVE FAILURE MODE CRITICALITY		962	AFCRITRW	
AFFIRMATIVE TASK REQUIREMENT		808	AFTSKRRW	
NEGATIVE QUESTION NUMBER		801	NGQNUMRW	
NEGATIVE DISPOSITION CODE		084	NGDISCRW	
NEGATIVE FAILURE MODE CRITICALITY		962	NGCRITRW	
NEGATIVE TASK REQUIREMENT		808	NGTSKRRW	
TABLE RX: SERVICING CLAIMED TASK ASSIGNMENTS				
SELECT TABLE RX				
TABLE RY: WORK AREA CODE ANALYSIS DEFINITION				
WORK AREA CONSIDERATION GROUP CODE	K	820	GRPCODRY	
WORK AREA CONSIDERATION SEQUENCE NUMBER	K	828	CONSEQRY	
WORK AREA CONSIDERATION	M	829	CONSIDRY	
AUSTRALIAN DEFENCE ORGANISATION V TABLES				
TABLE VA: LCN ADDITIONAL ADO PROVISIONING DATA				
AUTHORITY TO DEMAND NSN		941	AUTHTDVB	
PROVISIONING REFERENCE		942	PROVRFVA	
REQUIREMENTS AMPLIFICATION CODE		943	RQAMCDVA	
TABLE VB: AUTHORISED TO DEMAND NSN				
AUTHORITY TO DEMAND NSN	K	941	AUTHTDVB	
AUTHORISED TO DEMAND NSN PRICE		950	ATDPRIVB	
AUTHORISED TO DEMAND NSN EXISTING STOCK		952	ATDEXIVB	
AUTHORISED TO DEMAND NSN UNIT OF ISSUE		953	ATDUOIVB	
SERVICING LEVEL		954	SERLEVVB	
TABLE VC: AUTHORISED TO DEMAND NSN - FACILITY				
FACILITY CODE (ADF)		955	FACODEVC	
MAINTENANCE SUPPLY ITEM (MSI) UNIT ENTITLEMENT		956	MSIUENVC	
TABLE VD: ADDITIONAL PART INFORMATION				
HAZARDOUS GOODS UN NUMBER		957	HAZGUNVD	
PART PRIMARY LIFING PARAMETER		923	PLIFPAVD	
EXTENDED ITEM NAME		893	EXTINMVD	
TABLE VE: TASK FACILITY REQUIREMENT EXTENSION				
TASK COST OF REPAIR ESTIMATED		958	ESTCSTVE	
TASK COST OF REPAIR ACTUAL		959	ACTCSTVE	
FACILITY TASK TIME		961	TSKTIMVE	
TABLE VF: ADF FAILURE MODES				
FAILURE MODE CRITICALITY (ADF)		962	FMCRITVF	
FUNCTIONAL LSA CONTROL NUMBER		199	FLSACNXG	
FUNCTIONAL ALTERNATE LCN CODE		19	FALCNCXG	

Data Element	Key	DED	DE CODE	Required
TABLE VG: ADO ENHANCED CRITICALITY CODES				
SELECT VG TABLE				
TABLE VR: SYSTEM/END ITEM ROLE CODE				
END ITEM ACRONYM CODE (EIAC)	F	96	EIACODXA	
ROLE CODE	K	965	ROLCODVR	
ROLE DESCRIPTION		967	ROLDESVR	
TABLE VS: ROLE CODE TO MISSION PHASE CROSS REFERENCE				
SELECT TABLE VS				
TABLE VT: ROLE TO LCN CROSS REFERENCE				
ROLE REQUIRED FIT		966	ROLREQVT	
AUSTRALIAN DEFENCE ORGANISATION W TABLES				
TABLE WA: EVENT MEASUREMENT BASE LIBRARY				
EVENT MANAGEMENT BASE	K	923	EVNTMBWA	
EVENT MEASUREMENT BASE DESCRIPTION		922	DESCRPWA	
TABLE WB: TASK/EVENT CROSS REFERENCE				
TASK INTERVAL		937	TSKINTWB	
TABLE WC: TASK REQUIREMENT EXTENSION				
CONTINGENCY REQUIREMENT		921	CONTINWC	
HISTORICAL TASK FREQUENCY		430	HTSKFQWC	
HISTORICAL TASK FREQUENCY NARRATIVE		964	TFQNARWC	
STANDARD ACTIVITY CODE		836	STNACTWC	
TABLE WD: MAINTENANCE TASK ENHANCED CRITICALITY CODES				
ENHANCED CRITICALITY CODE	K	834	ECCODEWD	
TABLE WE: ALTERNATE CAGE AND REFERENCE NUMBER BATCH INFORMATION				
BATCH NUMBER	K	917	-----	
BATCH IDENTIFICATION	M	918	BTCHIDWE	
TABLE WF: ALTERNATE CAGE AND REFERENCE NUMBER SET IDENTIFICATION				
ACRN SET SEQUENCE NUMBER	K	919	SEQNUMWF	
TABLE WG: TECHNICAL MANAGEMENT CODE LIBRARY				
TECHNICAL MANAGEMENT CODE	K	938	TMNTCDWG	
TECHNICAL MANAGEMENT CODE STATUS	M	939	TMCSTAWG	
MAXIMUM FIT		927	MAXFITWG	
TABLE WH: TECHNICAL MANAGEMENT CODE TO PHYSICAL LCN CROSS REFERENCE				
SELECT TABLE WH				
TABLE WI: ALTERNATE CAGE AND REFERENCE NUMBER SET				
SELECT TABLE WI				
TABLE WJ: AUTHORITY TO FIT ACRN ON SERIAL NUMBER SYSTEM/END ITEM				
AUTHORITY TO FIT SERIAL NUMBER	M	911	AUTHTFWJ	
TABLE WK: AUTHORITY TO FIT ACRN ON SYSTEM/END ITEM				
AUTHORITY TO FIT	M	911	AUTHTFWK	
TABLE WL: MAINTENANCE TASK TO SYSTEM CROSS REFERENCE				
SELECT TABLE WL				

Data Element	Key	DED	DE CODE	Required
TABLE WM: SERVICING LIBRARY				
END ITEM ACRONYM CODE (EIAC)	F	96	EIACODXA	
SERVICING IDENTIFIER	K	933	SRVCIDWM	
TABLE WN: SERVICING IDENTIFICATION				
SERVICING TITLE		935	SVTITLWN	
SIGN UP REQUIREMENT		936	SIGNUPWN	
STANDARD ACTIVITY CODE		836	STNACTWN	
TABLE WO: SERVICING TASK				
SELECT TABLE WO				
TABLE WP: SERVICING INTERVAL AND EVENT MEASUREMENT BASE				
SERVICING INTERVAL		934	SVCINTWP	
TABLE WQ: SERVICING FACILITY				
SELECT TABLE WQ				
TABLE WR: SERVICING TECHNICAL MANUAL				
SELECT TABLE WR				
TABLE WS: SERVICING GROUP				
SERVICING GROUP IDENTIFIER	K	930	GRUPIDWS	
SERVICING GROUP SEQUENCE NUMBER		931	GRPSEQWS	
TABLE WU: TECHNICAL MANAGEMENT CODE LOG				
LOG REQUIREMENT	K	926	LOGREQWU	
TABLE WV: LCN ENHANCED CRITICALITY CODE				
SELECT TABLE WV				
TABLE WX: COMPARTMENT CODE LIBRARY				
COMPARTMENT CODE	K	831	COMPCDWX	
COMPARTMENT CODE NAME		832	CCNAMEWX	
COMPARTMENT CODE DESCRIPTION		833	CCDESCWX	
TABLE WY: LCN INFORMATION EXTENSION				
PRIME CAGE CODE		46	CAGECDWF	
PRIME REFERENCE NUMBER		337	REFNUMWF	
ACRN SET SEQUENCE NUMBER		919	SEQNUMWF	
ITEM CRITICALITY		925	CRITEMWY	
CONFIGURATION CODE		920	CFGCODWY	
REQUIRED FIT		929	REQFITWY	
MEAN TIME BETWEEN FAILURE-B		928	MTBFBXWY	
WORK AREA CODE		940	WACODERA	
EXTENDED NOMECLATURE		909	EXTNOMWY	
LCN REPLACEMENT LEVEL		910	REPLEVWY	
COMMON MANAGEMENT CODE		908	CMCODEWY	
CONFIGURATION ITEM NUMBER (CIN)		830	CINCODWY	
COMPARTMENT CODE		831	COMPCDWX	
ASSEMBLY ITEM DESIGNATOR		835	AIDCODWY	
ADAASS REFERENCE NUMBER (HEADER)		837	ADRNHDWY	

Data Element	Key	DED	DE CODE	Required
ADAASS REFERENCE NUMBER (HEADER VARIANT)		838	ADRNHVWY	
AUSTRALIAN DEFENCE ORGANISATION Z TABLES				
TABLE ZC: MMI PROCESS LIBRARY				
END ITEM ACRONYM CODE (EIAC)	F	096	EIACODXA	
MMI PROCESS CODE	K	810	MMIPROZC	
MMI PROCESS CODE DESCRIPTION		811	MPRDESZC	
MMI SERV SIGNUP REQUIREMENT		936	SIGNUPZC	
TABLE ZD: MMI SERVICING GROUPS				
END ITEM ACRONYM CODE (EIAC)	F	096	EIACODXA	
LSA CONTROL NUMBER (LCN)	F	199	LSACONXB	
ALTERNATE LCN CODE	F	019	ALTLCNXB	
LCN TYPE	F	203	LCNTYPXB	
TASK CODE	F	427	TASKCDCA	
SERVICING GROUP IDENTIFIER	K	930	GRUPIDZD	
SERVICING GROUP SEQUENCE NUMBER		931	GRPSEQZD	
TABLE ZE: MMI SERVICING TASK LIST				
SELECT TABLE ZE				
TABLE ZF: MMI SERVICING GROUPED TASKS				
SERVICING GROUP TASK SEQUENCE NUMBER	K	932	TSKSEQZF	
TABLE ZG: MMI SERVICING TASK REQUIREMENT EXTENSION				
MMI SERVICING TITLE		935	MSTITLZG	
STANDARD ACTIVITY CODE		836	STNACTZG	
TABLE ZL: ALCS WITHIN ALCS				
SELECT TABLE ZL				

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ILS-TDATA-MTDI-V5.3

2.   TITLE: MASTER TECHNICAL DATA INDEX

3.   DESCRIPTION AND INTENDED USE

3.1   The Master Technical Data Index (MTDI) is a master list of the Technical Data required to be delivered under the Contract, including the Technical Data required for the purposes identified in this clause 3 and clause 6.2.1.1. The MTDI enables the creation of subordinate lists to address *specific requirements* for individual data items, identified in clause 6.2.1.2, pertaining to particular categories of Technical Data. Delivery or update of a list for a *specific requirement* involves the delivery or update of the relevant data within the MTDI.

3.2   The Contractor uses the MTDI to:

a.   document and advise the Commonwealth of the Technical Data to be delivered to the Commonwealth and Associated Parties in relation to the Contract;

b.   in relation to the Mission System, identify the specifications, design documentation and associated product data, and identify their associated management information;

c.   in relation to the Support System, document the outcomes of its Technical Data requirements analysis and inform the Commonwealth of the Technical Data required to enable the Support System Functional Baseline (SSFBL) to be met; and

d.   manage Technical Data rights, including to benefit from those rights and to meet its obligations, including in regards to any restrictions arising under clause 5 of the COC.

3.3   The Commonwealth uses the MTDI to:

a.   understand, evaluate and monitor the scope of Technical Data under the Contract;

b.   understand the scope of Technical Data to be used to document the design and undertake the Verification and Validation (V&V) of the Mission System and Support System, including evaluating the Technical Data required to meet the SSFBL;

c.   understand the scope of Technical Data to be delivered to the Commonwealth and Associated Parties, and to identify the actions required with respect to that Technical Data;

d.   in conjunction with the Australia and New Zealand (ANZ) Subcontractor Technical Data List (ASTDL), understand the scope of Technical Data required to support the Australian Industry Capability (AIC) program; and

e.   benefit from its Technical Data rights and to meet its obligations, including in regards to any restrictions arising under clause 5 of the COC.

4.   INTER-RELATIONSHIPS

4.1   The MTDI is subordinate to the following data items, where these data items are required under the Contract:

a.   Technical Data Plan (TDP);

b.   Integrated Support Plan (ISP);

c.   Systems Engineering Management Plan (SEMP); and

d.   Configuration Management Plan (CMP).

4.2   The MTDI inter-relates with the following data items, where these data items are required under the Contract:

a.   System Architecture Description (SAD);

b.   Support System Description (SSDESC);

c.   Software List (SWLIST);

d.   all data items required under the AIC clause in the SOW; and

e.   all other data items that identify, list, or which are Technical Data.

4.3   The MTDI also inter-relates with:

a.   the Technical Data and Software Rights (TDSR) Schedule; and

b.   the systems used under the Contract for the management of Technical Data, including the Data Management System (DMS), Engineering Information System (EIS), Logistic Support Analysis Record (LSAR), and Configuration Status Accounting (CSA) system.

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

DEF(AUST)5629C	*Production of Military Technical Manuals*
DEF(AUST)IPS-5630	*Developing S1000D Interactive Electronic Technical Publications (IETPs)*
DI-IPSC-81431A	*System/Subsystem Specification* (SSS)
DI-IPSC-81432A	*System/Subsystem Design Description* (SSDD)
DI-IPSC-81433A	*Software Requirements Specification* (SRS)
DI-IPSC-81434A	*Interface Requirements Specification* (IRS)
DI-IPSC-81435A	*Software Design Description* (SDD)
DI-IPSC-81436A	*Interface Design Description* (IDD)
DI-IPSC-81437A	*Database Design Description* (DBDD)
DI-IPSC-81438A	*Software Test Plan* (STP)
DI-IPSC-81439A	*Software Test Description* (STD)
DI-IPSC-81440A	*Software Test Report* (STR)
DI-IPSC-81441A	*Software Product Specification* (SPS)
DI-IPSC-81442A	*Software Version Description* (SVD)
DI-SESS-81632	*Interface Specification*
MIL-STD-490A	*Specification Practices*
MIL-STD-961E	*Defense and Program-Unique Specifications Format and Content*
S1000D™	*International Specification for Technical Publications using a Common Source Database*, Issue 5.0

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The MTDI shall be provided in soft copy as a structured data file (eg, one or more databases, spreadsheets or other structured data format) that enables the MTDI content to be accessed, queried, read, printed, and used to generate soft copy tabulated text reports.

6.1.3   When records from the MTDI are to be provided to meet the *specific requirements* of an individual data item, the Commonwealth's expectation is that either:

a.   the data item will be delivered, with the records being derived from a filtered set of current data from the MTDI; or

b.   the MTDI will be delivered, and the records for the required data item can be easily filtered from the other records within the MTDI.

6.1.4 Except where the soft copy data file is compatible with a standard Software application defined elsewhere in the Contract, or otherwise agreed in advance and in writing by the Commonwealth Representative, the MTDI shall be accompanied by any Software and Technical Data required to enable those functions identified in clause 6.1.2.

6.1.5 The MTDI shall be updated as the Contractor's Materiel System solution matures, so as to keep track of the status of Technical Data during the period of the Contract.

6.2 Specific Content

6.2.1 General

6.2.1.1 The MTDI shall identify all of the Technical Data:

a. delivered, or required to be delivered, to the Commonwealth or an Associated Party in relation to the Contract;

b. required to enable the Commonwealth to undertake Contract governance, to meet its obligations and exercise its rights under the Contract, and to use and support the Supplies as described in the Contract and Contract (Support);

c. required to enable the SSFBL to be met;

d. required to inform decision-making by the Commonwealth in relation to the Contract and the Materiel System, including in relation to Capability, cost (including Life Cycle Cost), schedule, operational and/or Maintenance considerations, Defects, and Configuration Changes including Deviations;

e. related to the Software identified in the SWLIST, when a SWLIST is required under the Contract, including Software Design Data, Source Code, and Software test plans, procedures and reports;

f. required for obtaining and maintaining product certification, including satisfying government and Defence regulatory and assurance requirements; and

g. that is used (or required to be used) by the Commonwealth in meeting its broader obligations (eg, in relation to financial accountability, security, safety and environmental protection).

6.2.1.2 When a data item for Technical Data is required to be derived from the MTDI under the Contract, the data item shall meet the *common requirements* of clause 6.2.2 and the *specific requirement* being requested, which may include:

a. a Mission System Technical Documentation Tree (MSTDT), detailed in clause 6.2.3;

b. a Drawing List, detailed in clause 6.2.4;

c. a Support System Technical Data List (SSTDL), detailed in clause 6.2.5;

d. a Publication Tree (PUBTREE), detailed in clause 6.2.6;

e. a Training Materials List (TML), detailed in clause 6.2.7; and

f. standalone DIDs for particular categories of Technical Data (eg, product certification data, Codification item list, and manufacturing and assembly data).

6.2.2 Common Requirements

6.2.2.1 Each list of Technical Data, derived from the MTDI, shall include the following *common information* requirements for each item of Technical Data:

a. the unique item reference number, document number, drawing number or S1000D Data Management List (DML) control number, as applicable;

b. the name or title of the item of Technical Data;

c. the version (eg, draft, update, final);

d. the revision number / DML issue number / amendment status and release / issue date, as applicable;

e. a brief description of the item of Technical Data (or the amendment to an existing item of Technical Data), including its purpose or use;

f.   the unique product identifier for the system / sub-system / Configuration Item (CI) / end-product (including hardware and Software) to which the item of Technical Data relates;

g.   the name of the system / sub-system / CI / end-product (including hardware and Software) to which the item of Technical Data relates;

h.   the source (eg, name of the Subcontractor / supplier that created or provided it);

i.   if Commonwealth rights to the Technical Data, as defined through clause 5 of the COC (eg, Intellectual Property rights), are restricted:

    (i)   cross-reference to the 'Unique Line Item Description' of any line item in the TDSR Schedule that applies to the item of Technical Data;

    (ii)   whether the item of Technical Data is Commercial TD; and

    (iii) if the item of Technical Data is Commercial TD that is not related to a Key Commercial Item, cross-reference to the terms on which the item of Technical Data is licensed to the Commonwealth;

j.   if Commonwealth rights to the Technical Data are restricted for reasons other than those defined through clause 5 of the COC (eg, Export Approvals), a cross-reference to the applicable licence or agreement (eg, a Technical Assistance Agreement);

k.   any applicable Australian or foreign security classification;

l.   the Technical Data category (eg, manual, specification, drawing, presentation for a system review, Software Source Code, etc), as identified in the Approved TDP or the Approved ISP, whichever is the governing plan under the Contract;

m.   the standards to which the item of Technical Data will be, or has been, prepared (eg, a data item description, S1000D™ and DEF(AUST)IPS-5630, or DEF(AUST)5629C);

n.   the schedule requirements for update and/or maintenance;

o.   delivery details, including:

    (i)   if the item of Technical Data is to be delivered to the Commonwealth;

    (ii)   details of the recipient (which includes the Commonwealth, Subcontractors, regulatory authorities / assurance agencies, Escrow Agent (if applicable), Associated Parties, and other support organisation(s)), including (or cross-referencing) the location, organisation, and position of the recipient; and

    (iii) the delivery date, and any milestone to which delivery relates (eg, a System Review that uses the Technical Data); and

p.   the intended end user (ie, Commonwealth, Contractor, Subcontractors, and in-service support organisations such as the Contractor (Support) and Subcontractors (Support) where these organisations may include the Contractor and related entities involved in the provision of support).

6.2.3   Specific Requirements – Mission System Technical Documentation Tree

Note: The CDRL may specify individual delivery requirements for this element of the MTDI.

6.2.3.1   Mission System Technical Documentation Tree

6.2.3.1.1   The MTDI shall, pursuant to clauses 6.1.2 and 6.1.3, enable a subset of the MTDI to be derived representing a hierarchical list of all of the specifications and design documentation for the Mission System, with this hierarchical list to be structured in accordance with the product breakdown structure (or the system breakdown structure) for the Mission System ('**Mission System Technical Documentation Tree (MSTDT)**').

6.2.3.1.2   When this DID is invoked under the Contract to define a MSTDT, the data item shall include, for each item of Technical Data, the *common information* required by clause 6.2.2.1 and:

a.   the current document control authority (ie, the organisation responsible for content of the document and the only authority that can effect changes to it); and

b.   the Commonwealth's action period and required action (eg, Review or Approve) in accordance with clause 6.2.3.2.

6.2.3.1.3   The MSTDT shall define, for the set of documents:

a.   the hierarchical (parent-child) relationships between all specifications that define the system, from the Commonwealth's contractual input specifications through to the lowest level CI specifications; and

b.   the relationships between the documents in the Contractor's program.

6.2.3.1.4   For system elements that have not been defined, due to the limited maturity of the design when the MSTDT is produced, the MSTDT shall define generic elements (eg, a generic subsystem) and the associated design documentation that is expected for that element (eg, subsystem specification, interface specification, subsystem design document).

6.2.3.2   MSTDT Specific Commonwealth Management Requirements

6.2.3.2.1   When the MSTDT includes documents that are explicitly listed in the CDRL, it shall refer to the CDRL to define the obligations with respect to those documents.

6.2.3.2.2   Except where otherwise defined in this DID, the SOW or CDRL, the MSTDT shall identify all specifications and design documentation for the Mission System as subject to Review by the Commonwealth Representative.

6.2.3.2.3   Except where otherwise agreed by the Commonwealth Representative, the MSTDT shall identify the following types of documents for the Mission System as subject to Approval by the Commonwealth Representative:

a.   specifications and design documentation for all external interfaces (ie, those elements of each Mission System that interface to other Commonwealth systems and equipment);

b.   specifications and design documentation for human-system interfaces; and

c.   if the Mission System is a system-of-systems, specifications and design documentation for the internal interfaces between the component systems, including the internal interfaces to any control system and/or management system (eg, mission management system or combat management system).

6.2.3.2.4   Except where otherwise agreed by the Commonwealth Representative, the MSTDT shall identify that a draft of all specifications at the first level below the Mission System level (ie, subsystem or segment) will be delivered prior to the System Definition Review (SDR), to enable the finalisation of the Mission System Functional Baseline at the SDR.

6.2.3.2.5   Except where otherwise agreed by the Commonwealth Representative, the MSTDT shall identify that the Commonwealth's action period for all delivered documents is 20 Working Days.

6.2.3.3   MSTDT Documentation Standards

6.2.3.3.1   Although not mandated, the following table provides guidance for the expected level of detail associated with the specifications and design documentation. The Contractor may propose the use of these or similar publicly available standards or, where appropriate, the Contractor's internal standards. If the Contractor proposes to use an internal standard for a document the standard shall be delivered with the MSTDT.

Design Element	Document	Expected Level (or equivalent)	
Segments / Subsystem	Specification	SSS	DI-IPSC-81431A
	Interface Specification	IS	DI-SESS-81632
	Design Document	SSDD	DI-IPSC-81432A
Hardware	Specification		MIL-STD-961E
	Interface Control Document	ICD	MIL-STD-490A
	Design Document	SSDD	DI-IPSC-81432A

Design Element	Document	Expected Level (or equivalent)	
Software	Requirement Specification	SRS	DI-IPSC-81433A
	Interface Specification	IRS	DI-IPSC-81434A
	Software Design Description	SDD	DI-IPSC-81435A
	Interface Design Description	IDD	DI-IPSC-81436A
	Software Test Description	STD	DI-IPSC-81439A
	Software Test Report	STR	DI-IPSC-81440A
	Software Product Specification	SPS	DI-IPSC-81441A
	Software Version Description	SVD	DI-IPSC-81442A

6.2.4 Specific Requirements – Drawing List

Note: The CDRL may specify individual delivery requirements for this element of the MTDI. In this DID, Engineering Drawings has the meaning of 'Engineering Design Data' as defined in DEF(AUST) 5085C and refers to technical drawings and data sets for physical design data (eg, three-dimensional modelling and computer-aided design data), which represent hardware products of the Materiel System.

6.2.4.1 The MTDI shall, pursuant to clauses 6.1.2 and 6.1.3, enable a subset of the MTDI to be derived that lists all drawings (both new and existing) that relate to the Mission System and Support System ('**Drawing List**').

6.2.4.2 The Drawing List shall include all Engineering Drawings:

a. associated with the installation of Mission System and Support System elements at a Defence site or onto a Defence platform (if applicable);

b. that are necessary, in conjunction with other Technical Data, to disclose the physical, functional, and performance characteristics of all external interfaces;

c. that define key internal interfaces to assist with the management of growth, evolution and Obsolescence, including those identified pursuant to clause 6.2.3.2.3c; and

d. required to enable other requirements of the Contract to be met (eg, in relation to Codification, parts determination, structural integrity, and weight and balance).

6.2.4.3 When this DID is invoked under the Contract to define a Drawing List, the data item shall include, for each identified drawing, the *common information* required by clause 6.2.2.1 and:

a. manufacturer's code (eg, CAGE code or other enterprise identifier);

b. drawing size (eg, for drawings in aperture card format);

c. number of sheets, including the identification of the individual sheet numbers;

d. next higher assembly or 'used on'; and

e. details of electronic files including:

(i) the file name and file format; and

(ii) if applicable, the storage media (eg, the volume name when stored over multiple media items).

6.2.4.4 The Drawing List shall also include the *common information* (as required by clause 6.2.2.1) for the following types of documents, when applicable:

a. 'interpretation documents', used to facilitate interpretation of each applicable Contractor and Subcontractor drawing system; and

b.   'associated lists', which tabulate the engineering information pertaining to items depicted on an engineering drawing or a set of drawings (eg, parts list, data list, and index list).

6.2.5   Specific Requirements – Support System Technical Data List

6.2.5.1   Support System Technical Data List

Note: The CDRL may specify individual delivery requirements for this element of the MTDI.

6.2.5.1.1   The SSTDL shall, pursuant to clauses 6.1.2 and 6.1.3, enable a subset of the MTDI to be derived that represents the complete list of Technical Data required to enable the SSFBL to be met, and shall be based upon:

a.   the CDRL;

b.   the support-related elements under clause 6.2.1.1 (including in relation to product evolution through life) and clause 6.2.5.2.1;

c.   the Technical Data requirements analysis conducted by the Contractor in accordance with the Approved TDP or the Approved ISP, whichever is the governing plan under the Contract;

d.   updates to the Technical Data requirements, as the developmental status of the Mission System and the Support System matures; and

e.   the data that comprises a Configuration Baseline for the Supplies, including in relation to the Mission System, Support System Components, and for Training.

6.2.5.1.2   When particular Technical Data does not currently exist, but will be created as an outcome of a particular activity under the Contract or the Contract (Support), the SSTDL shall identify the Technical Data generically.

6.2.5.1.3   When this DID is invoked under the Contract to define a SSTDL the data item shall include, for each item of Technical Data, the *common information* required by clause 6.2.2.1 and:

a.   if applicable, the title of the related Australian Industry Activities (AIAs) required for the in-service phase and the associated contractor and/or subcontractors;

b.   the native format of the item of Technical Data, and:

(i)   if digital, the file name and type and, for Technical Data other than Commercial TD, the authoring application, the document / data type definition and translator files (if applicable), and the standards that have been applied and that will be applied for any subsequent development under the Contract; or

(ii)   if not digital, the type of hard copy format (eg, paper, microfilm, aperture card) and, for Technical Data other than Commercial TD, the standards that have been applied and that will be applied for any subsequent development under the Contract;

c.   the quantity (ie, number of copies) to be delivered and the method of delivery (eg, hard copy or electronic form (ie, soft copy or transfer via a Data Management System, if applicable, or to an agreed information system));

d.   for items of Technical Data to be delivered to the Commonwealth, the CDRL reference (if applicable); and

e.   if not included in the Technical Data category, the developmental status of the item of Technical Data (eg, existing and not to be modified, existing and to be modified, or new).

6.2.5.1.4   The SSTDL shall enable items of Technical Data to be listed and sorted, including by:

a.   the applicable Support System Constituent Capability (SSCC);

b.   the applicable system, sub-system, CI or end-product (including both hardware and software CIs or end-products), with the breakdown structure being consistent with the Contract Work Breakdown Structure (CWBS);

c.   the source of the Technical Data;

d.   the intended end-user (including the Contractor and related entities involved in the provision of support);

e.   if applicable, the AIAs to which the Technical Data relates; and

f.   data attributes that identify an item of Technical Data as being included in one or more Technical Data categories, types and sub-types assigned by the Contractor (eg, if an item of Technical Data is part of a particular System Review package).

6.2.5.2   Support System Technical Data to be Delivered to the Commonwealth

6.2.5.2.1   Without limiting any other requirement in the SOW or this DID, the SSTDL shall identify, as a minimum, the following Technical Data as required to be delivered to the Commonwealth in accordance with clause 5.13 of the COC:

a.   all Technical Data explicitly identified in the SOW for delivery to the Commonwealth (including Technical Data identified in the SSTDL generically), and related (ie, supporting) Technical Data, required to enable the support of the Supplies, such as:

(i)   all data items that are or that contain Technical Data (eg, Hazard Analysis Reports, the Hazard Log, Software Support Plan (SWSP), and Learning Management Packages (LMPs)); and

(ii)   Technical Data created as an outcome of activities under the Contract including, as applicable, Objective Evidence for System Certification, Engineering Change Proposals (ECPs) / Engineering Change Orders (ECOs) and Deviations (Requests For Variance) related to the build state of 'as delivered' Supplies, and Acceptance Test Reports (and supporting information) that verify compliance with a Configuration Baseline for Supplies;

b.   all Technical Data required to enable the support of the Materiel System by Defence and the performance of the Contract (Support), which can be reasonably derived from the Contract (eg, technical maintenance plans and servicing schedules);

c.   the Technical Data required to be identified in accordance with clause 6.2.5.1.1; and

d.   to the extent not covered by subclauses a and c above, the Technical Data required to enable the Commonwealth, or a person on behalf of the Commonwealth, to:

(i)   install or configure the Supplies;

(ii)   integrate the Supplies with other systems;

(iii)   operate or maintain the Supplies;

(iv)   identify, isolate, and rectify defects in the Supplies, consistent with the scope of in-service Engineering and Maintenance activities as set out in the Contract and the Contract (Support) (if applicable);

(v)   undertake training in relation to the Supplies;

(vi)   remove or uninstall the Supplies;

(vii)   decommission, destroy or dispose of the Supplies; and

(viii)   modify and upgrade the Supplies as may be required to meet the growth, evolution and Obsolescence management objectives and requirements as set out in the Contract and the Contract (Support) (if applicable).

6.2.5.2.2   Except where otherwise defined in this DID, the SOW or CDRL or agreed by the Commonwealth Representative, the SSTDL shall identify all Technical Data to be delivered to the Commonwealth as:

a.   subject to Review by the Commonwealth Representative; and

b.   required to be delivered to the Commonwealth within 20 Working Days of the Approval of the SSTDL or an update to the SSTDL.

6.2.6   Specific Requirements – Publications Tree

Note: The CDRL may specify individual delivery requirements for this element of the MTDI.

6.2.6.1   The MTDI shall, pursuant to clauses 6.1.2 and 6.1.3, enable a subset of the MTDI to be derived representing a list of publications (new, existing and amended) that relate to the Mission System and Support System ('**Publications Tree**').

6.2.6.2   The Publications Tree shall:

    a.   define the range of publications resulting from the Technical Data requirements analysis; and

    b.   for publications that are to be delivered as S1000D-compliant source files, include the S1000D DML; or

    c.   for publications that are not required to be delivered as S1000D source files:

        (i)   identify the hierarchy of, and inter-relationships between, all publications including the distribution of information between each publication; and

        (ii)   provide the ability for hard copies to be produced in a logical and hierarchical format that allow quick and easy reference so that either experienced or inexperienced operational or logistics-support personnel can identify the publication reference that they require.

Note: The Publications Tree identifies items of Technical Data (eg, operator and support manuals) that are required to enable the Materiel System to be operated and supported through life and, therefore, the Publications Tree is a subset of the SSTDL.

6.2.6.3   When this DID is invoked under the Contract to define a Publications Tree the data item shall include, for each publication, the information required for the SSTDL by clause 6.2.5.1.3 and the schedule for the development and production of the publication.

6.2.7   **Specific Requirements – Training Materials List**

Note: The CDRL may specify individual delivery requirements for this element of the MTDI.

6.2.7.1   The MTDI shall, pursuant to clauses 6.1.2 and 6.1.3, enable a subset of the MTDI to be derived representing a list of Training Materials (new and existing) that are required for the Training courses required to be provided under the Contract ('**Training Materials List**').

6.2.7.2   The Training Materials List shall list all of the Training Materials required for the Training courses required to be provided under the Contract, including:

    a.   competency standards and/or course graduation requirements, as applicable;

    b.   student materials (eg, précis, workbooks, exercise and tutorial materials);

    c.   instructor materials including lesson plans, presentations and exercise materials;

    d.   all materials used for the assessment of students and related Training records;

    e.   documents required for Training course evaluation and reporting;

    f.   any other documents that enable Training delivery or administration; and

    g.   manuals and handbooks used in the provision of Training but not developed for Training purposes.

6.2.7.3   When this DID is invoked under the Contract to define a Training Materials List, the data item shall include, for each item of the Training Materials, the information required for the SSTDL by clause 6.2.5.1.3 and:

    a.   the unique code for the Training course / Learning Management Package;

    b.   the name of the Training course / Learning Management Package; and

    c.   if the document was developed specifically for Training purposes.

6.2.7.4   The Training Materials List shall be capable of being filtered and sorted by the data required under clause 6.2.7.3.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ILS-TDATA-PUBPACK-V5.3

2.   TITLE: PUBLICATIONS PACKAGES

3.   DESCRIPTION AND INTENDED USE

3.1   A Publications Package (PUBPACK) contains publications and amendments to publications that are to be delivered to the Commonwealth, and other parties if applicable, in accordance with the Approved Publications Tree (PUBTREE). The use of PUBPACKs enables new publications and amendments to publications to be managed as deliverable data items under the Contract.

3.2   The Contractor uses PUBPACKs to manage the delivery of those publications and amendments to publications that will be used in the operation and support of the Mission System and the Support System. This DID acts as a specification for the publications and amendments to publications within the PUBPACK, when these requirements have not been specified elsewhere in the Contract.

3.3   The Commonwealth uses PUBPACKs to obtain publications and amendments to publications, and to manage these as deliverable data items under the Contract.

4.   INTER-RELATIONSHIPS

4.1   The publications and amendments to publications to be included in each PUBPACK are defined in the Approved PUBTREE. The PUBTREE is derived from the Master Technical Data Index (MTDI).

4.2   Each PUBPACK is subordinate to the following data items, where these data items are required under the Contract:

      a.   Integrated Support Plan (ISP);

      b.   Technical Data Plan (TDP); and

      c.   Verification and Validation Plan (V&VP).

4.3   The distribution and use of publications delivered in accordance with this DID are subject to the rights and limitations in the Technical Data and Software Rights (TDSR) Schedule.

5.   APPLICABLE DOCUMENTS

5.1   The following document forms a part of this DID to the extent specified herein:

S1000D™	*International Specification for Technical Publications using a Common Source Database*, Issue 5.0
DEF(AUST)5629C	*Production of Military Technical Manuals*
DEF(AUST)IPS-5630	*Developing S1000D Interactive Electronic Technical Publications (IETPs)*
ASD-STE100	*International specification for the preparation of technical documentation in a controlled language*

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   This data item shall **not** comply with the CDRL clause entitled 'General Requirements for Data Items'.

6.2   Specific Content

6.2.1   Specific Requirements

6.2.1.1   Where the publication standard is specified in the Contract (including in the Support System Functional Baseline), this standard shall have precedence over any Approved plan, unless otherwise agreed by the Commonwealth Representative in writing.

6.2.1.2   Unless otherwise specified in the Contract or agreed by the Commonwealth Representative in writing, all new publications and amendments to existing publications, which are to be delivered to the Commonwealth, shall be developed using a Simplified Technical English (STE) dictionary derived from ASD-STE100.

6.2.1.3   Unless otherwise specified in the Contract or in the Approved ISP or the Approved TDP (whichever is the governing plan under the Contract):

Note: The term 'Business Rule Decision Points (BDRP)' in the following clause has the meaning given in DEF(AUST)IPS-5630.

a.   all new publications to be developed and delivered to the Commonwealth shall comply with S1000D, DEF(AUST)IPS-5630, and the Business Rule Decision Points (BRDP) specified in the Approved TDP or the Approved ISP (as applicable); and

b.   all amendments to existing Commonwealth publications, to be delivered to the Commonwealth, which:

(i)   are in S1000D Issue 5.0 format, shall be prepared in accordance with DEF(AUST)IPS-5630 and be consistent with the existing publication's BRDP;

(ii)   are in a legacy S1000D format, shall be prepared in accordance with DEF(AUST)IPS-5630 and be consistent with the existing publication; and

(iii) are not in S1000D format, shall comply with DEF(AUST)5629C.

6.2.1.4   All amendments to existing Contractor and Subcontractor publications, which are to be delivered to the Commonwealth, shall be prepared in the same style and format as the publication being amended.

6.2.1.5   Unless otherwise agreed by the Commonwealth Representative in writing, the following criteria shall be utilised for producing amendments to existing publications that are to be delivered to the Commonwealth:

a.   where a single or multiple S1000D Common Source Database (CSDB) object(s) have been identified as changed, these will be delivered as a complete or partial data exchange package in accordance with clause 6.2.2;

b.   if less than or equal to five percent of the pages of an existing publication are affected by the amendment, a page-for-page change to the affected publication is required; and

c.   if more than five percent of the pages of an existing publication are affected by the amendment, a new publication incorporating all of the required changes shall be provided.

6.2.1.6   Third-party publications, where source data is not reasonably available to the Contractor, may be provided to the Commonwealth in existing vendor layout and format.

6.2.1.7   All amendments to third-party publications, which are to be delivered to the Commonwealth, shall be provided in the same style and format as the parent publication.

6.2.2   Specific Requirements – S1000D Delivery Requirements

6.2.2.1   Each delivery of S1000D Issue 5.0 Technical Data shall include:

a.   the Data Management List (DML), which contains the current list of all CSDB objects to be delivered for the Contract (and which may be delivered as an S1000D listing from the Approved Publications Tree);

b.   a data exchange package, which includes:

(i)   a Data Dispatch Note (DDN), which lists all of the CSDB objects that are ready for delivery and their status (ie, in either draft or a completed format);

        (ii)   as a minimum, the CSDB objects (ie, S1000D Data Modules developed using eXtensible Markup Language (XML) files or Standard Generalized Markup Language (SGML) files, illustrations, multimedia, and legacy data formatted files) for those S1000D Data Modules identified for delivery in accordance with the Approved Publications Tree; and

        (iii)   a Business Rules Exchange (BREX) file for the validation of the CSDB objects.

6.2.2.2   The S1000D Data Modules referred to in clause 6.2.2.1b(ii) shall be:

a.   developed to a compliant S1000D XML schema, as defined in S1000D issue 5.0;

b.   delivered as source S1000D XML files with all associated information objects that make up the completed technical publication data, as defined in DEF(AUST)IPS-5630;

c.   delivered with all supporting information objects, developed consistent with the system, sub system and sub subsystem breakdown structure used for operation and maintenance of the applicable products;

d.   validated using the Approved BREX file, to confirm that they comply with Commonwealth requirements in DEF(AUST)IPS-5630 and the supporting BRDP.

DATA ITEM DESCRIPTION

1.   **DID NUMBER: DID-ILS-TDATA-TDP-V5.3**

2.   **TITLE: TECHNICAL DATA PLAN**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The Technical Data Plan (TDP) describes the Contractor's strategy, plans, methodology, and processes for meeting Contract requirements for the identification, control, assembly, preparation, verification, validation and delivery of Technical Data.

3.2   The Contractor uses the TDP to:

      a.   document the strategy, plans and procedures to define, manage and monitor the Technical Data activities under the Contract; and

      b.   ensure that those parties (including Subcontractors) who are undertaking Technical Data related activities understand their respective responsibilities, the processes to be used, and the time-frames involved.

3.3   The Commonwealth uses the TDP to:

      a.   ensure that the full scope of Technical Data associated with the Contract will be appropriately defined, developed, and monitored, and that there are coherent management arrangements in place;

      b.   understand and evaluate the Contractor's approach to meeting the Technical Data requirements of the Contract; and

      c.   understand the Commonwealth's involvement in the Contractor's Technical Data activities, including the monitoring of the Contractor's activities.

4.   **INTER-RELATIONSHIPS**

4.1   The TDP is subordinate to the following data items, where these data items are required under the Contract:

      a.   Project Management Plan (PMP);

      b.   Integrated Support Plan (ISP);

      c.   Systems Engineering Management Plan (SEMP); and

      d.   Configuration Management Plan (CMP).

4.2   The TDP inter-relates with the following data items, where these data items are required under the Contract:

      a.   Contract Work Breakdown Structure (CWBS);

      b.   Configuration Status Accounting Report (CSAR);

      c.   all data items derived from the Master Technical Data Index (MTDI);

      d.   Software List (SWLIST);

      e.   Data Accession List (DAL);

      f.   Publications Packages (PUBPACK); and

      g.   Verification and Validation Plan (V&VP).

5.   **APPLICABLE DOCUMENTS**

Note to drafters: The following list is indicative of the range of Technical Data standards available. Project Offices need to amend the list to ensure that the references align with current Defence policy and requirements of the Contract. See also the standards listed in Annex A.

5.1   The following documents form a part of this DID to the extent specified herein:

S1000D™	*International specification for technical publications using a common source database, Issue 5.0*
DEF(AUST)5629C	*Production of Military Technical Manuals*
DEF(AUST)IPS-5630	*Developing S1000D Interactive Electronic Technical Publications (IETPs)*
DEF(AUST)CMTD-5085C	*Engineering Design Data for Defence Materiel*
ISO 10303	*Automation systems and integration — Product data representation and exchange*
ISO 10918	JPEG
ISO 32000-1	*Document management – Portable document format*
MIL-PRF-28000	*Digital Representation for Communication of Product Data: IGES Application Subsets and IGES Application Protocols*
MIL-PRF-28001	*Markup Requirements and Generic Style Specification for Electronic Printed Output and Exchange of Text*
MIL-PRF-28002	*Raster Graphics Representation in Binary Format*
	ADF Service Publication standard(s), as specified in the Statement of Work

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   This data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   When the Contract has specified delivery of another data item that contains aspects of the required information, the TDP shall summarise these aspects and refer to the other data item.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   General

6.2.1.1   The TDP shall describe the objectives, scope, constraints, and assumptions associated with the Contractor's Technical Data activities. Any risks associated with these activities shall be documented in the Risk Register; however, the TDP shall describe the risk management strategies associated with any global risks relating to Technical Data.

6.2.2   Technical Data Organisation

6.2.2.1   The TDP shall describe the Contractor's organisational arrangements for meeting the Technical Data requirements of the Contract, including:

a.   identification of the Contractor's Technical Data manager, who will have managerial responsibility for meeting the Technical Data requirements of the Contract;

b.   the Contractor's and Approved Subcontractors' organisations with a primary responsibility for managing Technical Data, showing how these arrangements integrate into the higher-level management structures and organisations;

c.   the interrelationships and lines of authority between all parties involved in the Contractor's Technical Data activities; and

d.   the Contractor's and Approved Subcontractors' management positions with significant responsibilities for Technical Data activities.

6.2.3   Overview of Technical Data and Related Activities

6.2.3.1   The TDP shall provide an overview of the Contractor's program for meeting the Technical Data requirements of the Contract, including:

a.   the major activities to be undertaken, when, and by whom;

b.   the integration of Subcontractors into the Contractor's Technical Data activities;

c.   the personnel (including categories, expected numbers (by category) and associated skills/competencies) required by the Contractor and Subcontractors to meet the Technical Data requirements of the Contract, including the proposed sources for obtaining those personnel;

d.   the interfaces between the Technical Data activities and the Systems Engineering (SE) and Integrated Logistics Support (ILS) programs, including the mechanisms for ensuring that the Technical Data activities and outcomes are consistent with the developmental outcomes and support concepts for both the Mission System and the Support System;

e.   the interfaces between the Technical Data activities and the Configuration Management (CM) program;

f.   if not addressed in other data items delivered to the Commonwealth, the Contractor's strategy and methodology for electronic data interchange, if required, including the use of a Data Management System (DMS);

g.   if escrow is a requirement under the Contract, the identification of the proposed escrow agent, categories of Technical Data to be placed in escrow, and an outline plan for maintaining the currency of the Technical Data stored in escrow for the duration of the Escrow Agreement; and

h.   any training related to Technical Data that the Contractor's and Subcontractors' staff need to undertake, including details of any proposed Training courses.

6.2.3.2   If not addressed in other data items delivered to the Commonwealth, the TDP shall identify the issues, methodologies and processes for controlling and enabling access to Technical Data that is subject to restrictions, such as restrictions from Intellectual Property rights, security, Export Approvals, Technical Assistance Agreements, escrow arrangements, or other.

6.2.3.3   The TDP shall describe the Contractor's expectations of the Commonwealth with respect to the management of Technical Data including, if applicable, the interfaces and interactions with Commonwealth organisations external to the project office.

6.2.4   Technical Data Requirements Analysis

6.2.4.1   The TDP shall describe the Contractor's strategy, methodology, and processes to be utilised to undertake a Technical Data requirements analysis, including:

a.   the system for categorising Technical Data based on its intended purpose (eg, Maintenance manual, specification, drawing, presentation for a system review, etc), origin, management approach, and any other criteria defined by the Contractor;

b.   determining the appropriateness of using existing Technical Data to enable the Materiel System to be operated and supported through life, considering Defence's requirements for the configuration, roles and environments that are applicable to the Materiel System;

c.   undertaking cost-benefit analyses, if required, to determine the applicable Technical Data standards and specifications to be used;

d.   optimising the 'packaging' of scope and content for publications to:

(i)   minimise the number of publications required to be accessed by users to perform specific tasks;

(ii)   minimise the duplication of content between publications, and ensuring consistency if duplication cannot be avoided; and

  (iii) where publications will be applied to different configurations of the Mission System(s) and Support System Components, clearly identifying the relevance of configuration-specific content to the specific configurations;

e. identifying and optimising the range and quantity of Technical Data required to be delivered under the Contract, including:

  (i) existing Technical Data that is expected to be suitable without modification;

  (ii) existing Technical Data that is expected to require conversion into a different format;

  (iii) existing Technical Data that is expected to require modified content; and

  (iv) proposed new Technical Data.

6.2.5   Technical Data Development – General

6.2.5.1   The TDP shall describe:

a. the Contractor's program of activities for managing the Technical Data program;

b. the Contractor's program of activities for the identification, design, development, and delivery of Technical Data (appropriately cross-referenced to activities in the Contract Master Schedule (CMS) and in any subordinate schedules);

c. the Software tools to be applied to the generation and interpretation (authoring and viewing) of Technical Data;

d. the procedures, by category of Technical Data, for the receipt, review, Configuration Control, amendment, production and delivery of all Technical Data and associated supporting hardware and Software for the Support System (eg, to host IETPs, drawings / design data sets, or the Configuration Management System);

e. the procedures for the management and control of:

  (i) the MTDI, including the Support System Technical Data List (SSTDL);

  (ii) the DAL, if a DAL is required under the Contract; and

  (iii) related elements of the TDSR Schedule (with reference to the PMP);

f. the procedures for validating the MTDI, including the individual data items derived from the MTDI;

g. the strategy, methodology and processes to meet the Technical Data related regulatory / assurance requirements of the Contract, and any required organisational accreditations and / or certifications;

Note: Terms 'validate' and 'verify' in the following subclause are as used in DEF(AUST)5629C and DEF(AUST)IPS-5630, and do not apply to other sections of the Contract.

h. the Contractor's overall strategy, methodology and processes to validate Technical Data, including an indicative schedule and standards to be used; and

i. the Contractor's strategy and methodology for assisting the Commonwealth to verify Technical Data.

6.2.6   Technical Data Development – Standards and Specifications

6.2.6.1   The TDP shall describe:

a. the standards, by Technical Data category, for the preparation of Technical Data (refer clauses 6.2.6.2 and 6.2.6.3 of this DID);

b. the strategy, methodology and processes to validate that each data type complies with the relevant Technical Data standard;

c. the strategy, methodology and processes for the Contractor to convert any Technical Data that currently exists in formats that do not comply with the standards and specifications identified at Annex A to formats that do comply;

Note: 'Business Rules' in the following clause has the meaning given in DEF(AUST)IPS-5630.

- d.   for Technical Data that is produced as Common Source Database (CSDB) Objects in accordance with DEF(AUST)IPS-5630 and S1000D™, the methodology and processes to validate that the structure and the set of eXtensible Markup Language (XML) accords with the required Business Rules;

- e.   for Technical Data that is produced in accordance with DEF(AUST)5629C, the methodology and processes to validate that the structure and set of the Standard Generalised Markup Language (SGML) tagging accords to the Document Type Definition (DTD) (Army/Navy/RAAF versions) detailed in DEF(AUST)5629C; and

- f.   the methodology to validate that data file formats comply with the applicable standards used for data exchange and the methodology to validate the data file interpreters (eg, viewing tools) where they are provided as part of the Contract deliverables, including:

    - (i)   the processes and timeframes for conducting compliance testing; and

    - (ii) details pertaining to whether the Contractor proposes to conduct the testing using an internationally recognised testing authority, a central body, or an agency sub-contracted by the central body.

6.2.6.2   For each of the Technical Data categories identified under clause 6.2.4.1a, the TDP shall identify the Technical Data standards and specifications to be applied, using the following descriptors:

- a.   ***Primary Compliant Formats*** – digital formats that are compatible with the Commonwealth's policies and business practices;

- b.   ***Alternative Compliant Formats*** – digital formats that are not current Commonwealth policy or business policy, but may be considered on a case-by-case basis, depending upon the data type, Life Cycle Cost (LCC) considerations, intended management strategy, and application of the data;

- c.   ***Acceptable Non-Compliant Formats*** – digital formats that may be considered by the Commonwealth, depending on the data type, LCC considerations, intended management strategy, and application of the data; and

- d.   ***Formats that are not Suitable*** – proprietary digital formats that shall not be considered for delivery, except where the application is in current use in the Commonwealth and the cost-benefit analysis justifies delivery in these formats.

6.2.6.3   In applying the descriptors identified in the preceding clause, the TDP shall take into consideration that the Commonwealth currently utilises the Technical Data standards and specifications identified at Annex A to this DID.

6.2.7   **Technical Data Development – Publications**

6.2.7.1   The TDP shall describe:

- a.   the strategy, methodology, processes, and standards associated with the identification, development and delivery of publications;

- b.   the strategy, methodology and processes for validating the publications for readability, technical accuracy and grammatical correctness;

- c.   the Contractor's internal review and approval processes and procedures for publications prior to release to the Commonwealth, including in-process reviews, controls, and schedules;

- d.   the methodology for handling routine and priority changes and supplements;

- e.   the strategy and methodology for assessing the suitability of existing Commonwealth publications, if applicable; and

- f.   the procedures to identify the amendments required to existing publications and the management of amendment incorporation.

6.2.8   Technical Data Development – S1000D Technical Data

6.2.8.1   If S1000D Technical Data is applicable to the Contract, the TDP shall describe:

a.   the Contractor's strategy, methodology, and processes for the development of S1000D Technical Data, in accordance with the Business Rules defined in accordance with clause 6.2.8.2;

b.   the Contractor's program of activities associated with the design, development, and delivery of S1000D Technical Data (including cross-references to related activities in the CMS and in any subordinate schedules);

c.   the functionality of the S1000D Technical Data IETPs to be produced;

d.   the linkages with any Computer-Based Training required under the Contract;

e.   the Contractor's strategy, methodology, processes, and program of activities for undertaking verification and validation of S1000D Technical Data (cross-referenced to the applicable V&V program plans);

f.   the Contractor's proposed support strategy for the S1000D Technical Data, including the role and scope of the Commonwealth in the provision of in-service support and the proposed data exchange arrangements, the frequency of delivery for regular updates, and the approach to be implemented for urgent releases; and

g.   the methods of data exchange and transfer under the Contract, including data transfer points, in accordance with DEF(AUST)IPS-5630 or as otherwise agreed by the Commonwealth.

6.2.8.2   The TDP shall include (as an annex) a Business Rules Index, based on Annex B to DEF(AUST)IPS-5630, which includes:

a.   the (common) Defence Business Rules specified in DEF(AUST)IPS-5630;

b.   any additional or modified Business Rules specified at Annex A to the SOW or in the ADF Service Publication standard(s) identified in the SOW; and

Note: Commonwealth agreement to the Contractor-proposed BRDP will be provided through Approval of the TDP.

c.   the Business Rules Decision Points (BRDP) proposed by the Contractor for those BRDP designated in Annex B to DEF(AUST)IPS-5630 as "Contractor to propose, Commonwealth to agree".

6.2.9   Technical Data Development – Engineering Drawings

Note: 'Engineering drawings' refers to engineering design data for hardware products of the Materiel System, including technical drawings and data sets (eg, three-dimensional modelling and computer-aided design data).

6.2.9.1   The TDP shall describe:

a.   the methodology and processes to analyse the requirements for engineering drawings, including the applicable levels and categories of drawings, required:

(i)   to support Contract activities, including Mandated System Reviews; and

(ii)   to enable the sustainment of the Materiel System;

b.   the strategy, methodology, processes, and standards associated with the development and delivery of engineering drawings, including the Contractor's proposed tailoring and implementation of DEF(AUST)CMTD-5085C;

c.   the indexing method employed by the Contractor to manage and control the suite of engineering drawings;

d.   the strategy for validating the engineering drawings for technical accuracy;

e.   the Contractor's internal review and approval processes and procedures for engineering drawings prior to release to the Commonwealth, including in-process reviews, controls, and schedules; and

f.   the methodology for handling routine and priority changes to engineering drawings.

6

ANNEX A TO DID-ILS-TDATA-TDP

CURRENT COMMONWEALTH TECHNICAL DATA STANDARDS AND SPECIFICATIONS

Note to drafters: Amend the following list to ensure that the standards align with current Defence policy and the requirements of the project, including any requirement to update legacy Technical Data.

1. **TECHNICAL PUBLICATIONS**

1.1   Primary Delivery Compliant Format:

   a.   for Interactive Electronic Technical Publications (IETPs), the publications accord with S1000D™ and DEF(AUST)IPS-5630), and any Contract-specific requirements for S1000D™ deliverables; and

   b.   for page-based publications (including class 1 and 2 electronic technical manuals), the publications accord with either:

      (i)   S1000D™ and DEF(AUST)IPS-5630 (including for legacy publications produced in accordance with previous versions of S1000D (ie, prior to Issue 5.0)); or

      (ii)   DEF(AUST)5629C.

1.2   Primary Data-Source Compliant Format – Processable / Dynamic Documents:

   a.   Text - XML applying the applicable schemas as per DEF(AUST)IPS-5630; and

   b.   Graphics - vector and raster formats as detailed in S1000D™ (eg, Computer Graphics Metafile (CGM) for vector graphics and TIFF, PNG, JPEG for raster formats).

1.3   Alternative Data-Source Compliant Format:

   a.   Text - XML applying schemas Approved for use by the Commonwealth;

   b.   Graphics - vector and raster formats as detailed in S1000D™ (eg, CGM for vector graphics and TIFF, PNG, JPEG for raster formats); and

   c.   Composed Document - documents provided, which require no amendments throughout the life cycle of the equipment, may be delivered in Portable Document Format (PDF) in accordance with ISO 32000-1:2008.

1.4   Acceptable Data-Source Non-Compliant Format:

   a.   a neutral data file (platform independent file format) containing as a minimum hyperlink referencing between the table of contents and the applicable text. Preference is for PDF in accordance with ISO 32000-1:2008; and

   b.   native digital format in use by the Commonwealth (eg, Word 2010 '.docx' or later).

2. **ENGINEERING DRAWINGS**

2.1   Primary Data-Source Compliant Format:

   a.   DEF(AUST)CMTD-5085C; and

   b.   ISO 10303.

2.2   Acceptable Data-Source Non-Compliant Format:

   a.   AutoCAD native drawing format (DWG) in accordance with versions used by the Commonwealth or as agreed by the Commonwealth Representative. Drawings must be a direct output from the authoring system, and not the result of a translation process. All information necessary to open and manipulate the data files, including libraries, fonts, logical name definitions, and other supporting files shall be delivered with the drawing files; and

   b.   Autodesk Drawing Exchange Format (DXF) in accordance with versions used by the Commonwealth or as agreed by the Commonwealth Representative.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ILS-TNG-CBT-V5.3

2.   TITLE: COMPUTER BASED TRAINING

Note to drafters: Projects teams considering specifying CBT as a Training delivery method should develop the contents of this DID. DID-ILS-TDATA-PUBPACK, which also specifies data items that are Supplies, may be useful as a reference when developing this DID.

3.   DESCRIPTION AND INTENDED USE

3.1   This Computer Based Training (CBT) DID defines [... INSERT GENERIC PURPOSE OF DATA ITEM AS SPECIFICATION FOR CBT ...].

3.2   The Contractor uses the CBT DID as the specification for [... INSERT CONTRACTOR USE OF DATA ITEM ...] which are to be delivered to the Commonwealth.

3.3   The Commonwealth uses the CBT DID to specify requirements for and obtain delivery of [... TBD COMMONWEALTH NEED FOR DATA ITEM ...].

4.   INTER-RELATIONSHIPS

4.1   Computer Based Training (CBT) is subordinate to the following data items, where these data items are required under the Contract:

      a.   Integrated Support Plan (ISP);

      b.   Training Support Plan (TSP); and

      c.   Learning Management Packages (LMPs).

4.2   CBT inter-relates with the following data items, where these data items are required under the Contract:

      a.   Support System Technical Data List (SSTDL);

      b.   Training Materials List (TML);

      c.   Training Equipment List (TEL);

      d.   Software List (SWLIST);

      e.   Interactive Electronic Technical Publications (IETPs); and

      f.   [... TBD ...].

4.3   The distribution and use of CBT delivered in accordance with this DID are subject to the rights and limitations in the Technical Data and Software Rights (TDSR) Schedule.

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

      TBD

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   This data item shall **not** comply with the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   [... TBD ...].

6.2   Specific Content

Note to drafters: The specific content should include reference to any required data formats if necessary to ensure compatibility with existing Training delivery systems.

6.2.1   [... TBD ...]

6.2.1.1   [... TBD ...].

DATA ITEM DESCRIPTION

1.   **DID NUMBER:**   **DID-ILS-TNG-LMP-V5.3**

2.   **TITLE:**   **LEARNING MANAGEMENT PACKAGE**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The Learning Management Package (LMP) comprises the complete set of documentation necessary for the management and delivery of a Training course, including course design information and lists of the Training Equipment and Training Materials used for delivery. The LMP documents the Contractor's outputs from the '*design*' and the '*develop*' phases of the Systems Approach to Defence Learning (SADL) model (ie, including analyse, design, develop, implement and evaluate phases).

3.2   The Contractor uses the LMP to:

      a.   document the outcomes of its Training design and development activities;

      b.   demonstrate to the Commonwealth how the Training course will address the requirements of the performance needs and analysis outcomes, including those within a Training Requirements Specification (TRS) when applicable;

      c.   demonstrate to the Commonwealth that the Training courses represent part of a solution that minimises Life Cycle Cost; and

      d.   provide the basis for the management and delivery of the related Training course under the Contract and under the Contract (Support), as applicable.

3.3   The Commonwealth uses the LMP to:

      a.   assist to evaluate the Contractor's design and content of the Training course;

      b.   Verify the suitability of the proposed Training courses including, if applicable, with respect to a TRS;

      c.   understand the Commonwealth's scope of work for Sustainment Training; and

      d.   prepare for the Verification and Validation (V&V) of the Training course(s).

4.   **INTER-RELATIONSHIPS**

4.1   The LMP is subordinate to the following data items, where these data items are required under the Contract:

      a.   Integrated Support Plan (ISP);

      b.   Training Support Plan (TSP); and

      c.   Verification and Validation Plan (V&VP).

4.2   The LMP inter-relates with the following data items, where these data items are required under the Contract:

      a.   Performance Needs Analysis Report (PNAR);

      b.   Training Recommendations Report (TNGRECR);

      c.   Training Requirements Specification (TRS);

      d.   Support System Technical Data List (SSTDL);

      e.   Training Materials List (TML), a part of the Master Technical Data Index (MTDI);

      f.   Training Equipment List (TEL);

      g.   Software List (SWLIST);

      h.   Recommended Provisioning List (RPL);

      i.   Acceptance Test Plans (ATPs);

j.   Acceptance Test Procedures (ATProcs); and

k.   Acceptance Test Reports (ATRs), including 'trial course' reports.

4.3   The LMP inter-relates with the Technical Data and Software Rights (TDSR) Schedule.

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

SADL Guide   Defence Learning Manual chapter 4: the *Systems Approach to Defence Learning Practitioners' Guide*

ADF Service Training Manual(s), as specified in the Statement of Work

Standards for Training Packages, Australian Industry and Skills Committee

Standards For VET Accredited Courses 2021, Australian Skills Quality Authority (ASQA)

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

Note: The SADL Guide identifies further information that may be added to the delivered data item, by the Commonwealth, for the purpose of internal approvals.

6.2.1   General

6.2.1.1   The LMP shall be developed to incorporate the results from the learning solution design and development activities undertaken in accordance with the Approved TSP or ISP (whichever is the governing plan in the Contract), including the following SADL products:

a.   in respect of the SADL Analyse Phase (Annexes to the Approved TSP or ISP (whichever is the governing plan in the Contract) that are to be transferred to Annexes of the LMP for the applicable learning solution):

(i)   Design Phase Scope Proposal (SADL product DesP1); and

(ii)   Risk Assessment Summary (SADL product AP2);

b.   in respect of the SADL Design Phase (to be included as Annexes to the LMP):

(i)   Task Breakdown Sheet (SADL product DesW1);

(ii)   Learning Outcomes Requirements Sheet (SADL product DesW2);

(iii)   Draft Learning Outcomes (SADL product DesW3); and

(iv)   Mapping Matrix (SADL product DesP3)

6.2.2   Draft Learning Management Package

6.2.2.1   When this DID is invoked for the delivery of a Draft LMP, the delivered data item shall include sections 1 to 3 of the LMP, as defined by clause 6.3.

6.2.2.2   The Draft LMP documents the results of the SADL design phase and shall be substantially complete and sufficient to enable the Commonwealth to:

a.   Verify that the curriculum addresses the performance needs and course specifications included within or supporting the TRS or TNGRECR, as applicable;

b.   determine if the learning and assessment modules appear suitable and achievable;

c.   determine whether the review and evaluation strategies appear suitable; and

d.   if applicable to a qualification recognised within the national register of Vocational Education and Training (VET), review the readiness of the Units of Competency (UOCs) and course documents for accreditation by the National VET Regulator (ie, ASQA) or other accrediting body.

6.2.3   Learning Management Package

6.2.3.1   When this DID is invoked for the delivery of a (complete) LMP, the delivered data item shall include sections 1 to 5 of the LMP, as defined by clause 6.3.

6.2.3.2   The LMP incorporates the results of the SADL develop phase and shall be complete in all aspects, and suitable for the management and delivery of the Training course. For the purposes of this clause, 'complete in all aspects' includes Training Materials that are items of Technical Data developed for purposes other than Training (eg, operating and maintenance manuals) and which are delivered separately under the Contract.

6.3   Learning Management Package Structure

Note: Words in italics indicate headings within the SADL LMP template guide.

6.3.1   Section 1: Learning Management Information

6.3.1.1   Section 1 of the LMP, *learning management information*, shall contain a *course data description*, including:

a.   the identifying course code, the course name, and short name;

b.   the highest security classification of course content (often related to Technical Data or Software that supports but was not developed for Training purposes) as defined by the Security Classification and Categorisation Guide;

c.   a statement of the course aim;

d.   a brief course description, including an overview of the scope of the learning outcomes to be covered, core learning activities and other associated learning programs that, together, form a learning and development solution;

e.   the type of course (eg, continuation, familiarisation or specialist);

f.   the minimum and maximum number of students per course;

g.   the primary delivery method (eg, distance learning, instructor led, etc);

h.   applicable trade / profession (ie, 'skills domain' or 'job family') of the participants;

i.   total course duration; and

j.   if applicable, the Registered Training Organisation.

6.3.1.2   Section 1 of the LMP shall contain a list of the course *learning outcomes* including a sequence number, description and, if applicable, the related UOCs from training packages and qualifications within the national register of VET.

6.3.1.3   Section 1 of the LMP shall contain an outline of the *summative assessments* and identify the required assessor qualifications.

6.3.1.4   Section 1 of the LMP shall contain details of course prerequisites including:

a.   *course Service prerequisites* (eg, Defence prerequisites, student rank or grade, required security clearance, and so on) when this information is provided by the Commonwealth;

b.   *course qualifications prerequisites* including, as applicable:

(i)   education qualifications and language prerequisites;

(ii)   prerequisite military proficiencies;

(iii)   prerequisite UOCs identified from training packages and qualifications within the national register of VET; and

(iv)   prerequisite courses, including courses that are not included within the national register of VET; and

c.   *any additional prerequisites* identified by the course designers and developers.

6.3.1.5   Section 1 of the LMP shall list *course targets* in terms of proficiencies, competencies, qualifications and licences, as applicable.

6.3.1.6   If the course is a '*program course*', comprising a series of component or 'child courses', section 1 of the LMP shall list the *program course components* by course code and title.

6.3.1.7   Section 1 of the LMP shall contain a list of major items of *course equipment* (ie, Training Equipment) identified by part number (if available), equipment name and the required quantity (note that additional details will be included in section 3).

6.3.1.8   Section 1 of the LMP shall identify *Defence training authority details*, when this information is provided by the Commonwealth.

6.3.1.9   Section 1 of the LMP shall include an *evaluation plan* (ie, a SADL evaluation phase plan) that consists of:

a.   a learning review plan, which includes:

(i)   a summary of the V&V activities (eg, trial courses) to Verify the suitability of the course curriculum and to provide assurance of the quality of the learning and assessment materials;

(ii)   cross-references to the ATPs and ATProcs applicable to the evaluation; and

(iii)   focus areas for the evaluation process based on specific areas of risk (eg, safety critical and complex tasks); and

b.   a *workplace evaluation plan*, which includes:

(i)   a summary of the activities to Validate the learning outcomes and competencies applied in the workplace, including Contractor V&V program activities and recommended Defence activities, as applicable;

(ii)   cross-references to the ATPs and ATProcs applicable to the evaluation; and

(iii)   focus areas for the evaluation process based on specific areas of risk (eg, safety critical and complex tasks).

6.3.1.10   Section 1 of the LMP shall describe any *alternate learning pathways*, if applicable, such as assessment only, or recognition of competencies based on existing evidence.

6.3.1.11   Section 1 of the LMP shall identify course *accreditation* details including, when applicable:

a.   the VET regulator for course accreditation (eg, ASQA);

b.   Australian Vocational Education and Training Management Information Statistical Standard ('AVETMISS') codes and reporting requirements;

c.   proposed accreditation period; and

d.   recognition by other relevant professional or industry bodies.

6.3.1.12   Section 1 of the LMP shall include contact details for organisations able to grant *authority to use* the LMP and related Training Materials, consistent with Technical Data and Software Rights Schedule for the Contract.

6.3.1.13   Section 1 of the LMP shall identify *Intellectual Property holders* (ie, Defence, Contractor or third parties) including for course content imported from VET training packages, and cross-reference any related restriction of rights detailed in the TDSR Schedule.

6.3.1.14   Section 1 of the LMP shall incorporate, where applicable, any additional information:

a.   including special information or instructions provided by the course developers; and

b.   provided by the Commonwealth in relation to the above information requirements.

6.3.2   **Section 2: Curriculum**

6.3.2.1   Section 2 of the LMP shall describe the course curriculum, excluding cost information.

6.3.2.2   The course curriculum details shall include:

a. a *course overview*, including a course map (ie, graphical representation) showing the sequence of course modules and mapping of UOCs; and

b. course duration, identifying each learning and assessment module and any other activity, the duration of each module or other activity, and the total duration.

6.3.2.3 The course curriculum shall describe the *modules* within the course (where modules are used to group learning outcomes with a similar purpose or goal) including:

a. the module content, described in a single sentence and a list of the learning outcomes in the module;

b. identification of prerequisite modules;

c. the security classification of the content;

d. a list of the module's assessment activities;

e. a summary of the learning / Training delivery methods used within the module;

f. a list of key Support Resources, such as significant items of Training Equipment;

g. any WHS requirements; and

h. any additional information relevant to defining the scope of the module.

6.3.2.4 The course curriculum shall describe the *learning outcomes* for each module, including:

a. a learning outcome identifier (eg, LO1.1) and descriptive name;

b. performance conditions (ie, the learning and assessment environment);

c. performance standards to be attained in order to achieve competency;

d. assessment criteria, addressing the required skills, knowledge, and attitudes / behaviours;

e. identification of the related formative and summative assessment modules;

f. any related UOCs from VET;

g. a content summary, describing the skills, knowledge, etc, to be covered;

h. security classification of the content;

i. the Training level, if applicable (as defined in the SADL Guide);

j. any pre-requisite learning outcomes;

k. the learning / Training delivery method;

l. a summary of the resources required, including human resources, Facilities and Training Equipment;

m. a list of related Technical Data (ie, that was not developed as Training Materials);

n. any additional information relevant to describing the learning outcome; and

o. if there are no subordinate learning outcomes, a description of the teaching points applicable to this learning outcome.

6.3.2.5 The course curriculum shall describe each *subordinate learning outcome* (ie, being subordinate to a learning outcome in clause 6.3.2.4), as applicable, including:

a. identification of the related (parent) learning outcome;

b. a subordinate learning outcome identifier and descriptive name;

c. equivalent details for each topic identified in subclauses b to e and k to n under clause 6.3.2.4; and

d. teaching points.

6.3.2.6 The course curriculum shall describe the course assessments, including:

a. for each formative assessment:

         (i)   an identifier and name;

         (ii)   identification of the related learning outcome / subordinate learning outcome;

         (iii)   the assessment method;

         (iv)   a description of the assessment and the conditions under which the assessment is to be performed;

         (v)   the assessment criteria; and

         (vi)   any additional information relevant to describing the assessment; and

b.   for each *summative assessment*:

         (i)   for the purposes of summative assessment, each requirement as listed in clause 6.3.2.6a; and

         (ii)   any related UOCs from VET.

6.3.2.7   The course curriculum shall include any *additional information* provided by the Commonwealth, including reference to related Defence policies and procedures.

6.3.3   **Section 3: Major Resource Requirements**

6.3.3.1   Section 3 of the LMP shall identify the human and other Support Resources required to deliver the course. The list of *major resource requirements* in the LMP shall include:

a.   human resources requirements, including:

         (i)   instructors;

         (ii)   assessors; and

         (iii)   administration and support staff;

b.   the physical Support Resource requirements, including:

         (i)   the use of Mission Systems, if applicable;

         (ii)   proposed Training Facilities, summarising requirements such as the utilities, installed equipment and information systems required;

         (iii)   significant items of Training Equipment; and

         (iv)   related services (eg, student transport and access to information systems);

c.   the support to be provided by Defence units with a major role in providing learning and assessment activities, including the use of existing Defence resources; and

d.   any additional information provided by the Commonwealth in relation to the above.

6.3.3.2   Section 3 of the LMP should cross-reference section 4 instead of detailing the Training Equipment and Training Materials that are not considered to be major resources.

6.3.4   **Section 4: Learning and Assessment Materials**

6.3.4.1   Section 4 of the LMP shall list the *learning and assessment materials* used for the management and implementation of the course, including:

a.   materials developed for learning and assessment purposes including:

         (i)   student materials (eg, précis, workbooks, exercise and tutorial materials);

         (ii)   presentation media, exercise and other Training-delivery materials;

         (iii)   instructor manuals, guides and manuals for the use of Training Equipment;

         (iv)   student assessment and grading materials;

         (v)   software and electronic media for learning delivery and assessment;

         (vi)   competency specifications and graduation requirements;

         (vii) requirements for individual Training records and reporting;

         (viii) documents required for course evaluation and reporting; and

(ix)   any other documents and Software required to enable delivery of Training courses, conduct assessments, and perform administrative functions; and

b.   other Technical Data and Software that was developed for another purpose (eg, operating and maintenance manuals) but which is required for course.

6.3.4.2   Training Materials, developed for Training purposes, shall be attached to the LMP as soft copy data items.

6.3.4.3   For Technical Data and Software that were not developed for Training purposes but which are required for the delivery of Training, the LMP shall:

a.   identify the reference number or document number, as applicable, including the version / build number for Software;

b.   identify the document or Software module / library name, as applicable; and

c.   include a cross-reference to the related entry in the SSTDL or SWLIST, as applicable.

6.3.5   Section 5: Supporting Materials

6.3.5.1   Section 5 of the LMP shall list *supporting materials* used for the development of the LMP, but which are not disseminated as part of the course. The list shall identify, for each supporting document, the name, version number and date, and a reference to the applicable annex containing the document.

6.3.5.2   *Supporting materials* to be listed in Section 5 of the LMP include, when required under the Contract:

a.   the related TRS or TNGRECR, as applicable;

b.   the ATPs, ATProcs and the ATR(s) that include the resulting 'trial reports', and

c.   learning review reports.

6.4   Annexes

6.4.1   The LMP shall include annexes (or cross-references to supporting materials) for the following, as applicable to the Contract:

a.   Design Phase Scope Proposal (SADL product DesP1);

b.   Risk Assessment Summary (SADL product AP2);

c.   Task Breakdown Sheet (SADL product DesW1);

d.   Learning Outcomes Requirements Sheet (SADL product DesW2);

e.   Draft Learning Outcomes (SADL product DesW3);

f.   Mapping Matrix (SADL product DesP3); and

g.   Trial Report (SADL product DP1).

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ILS-TNG-TEL-V5.3

2.   TITLE: TRAINING EQUIPMENT LIST

3.   DESCRIPTION AND INTENDED USE

3.1   The Training Equipment List (TEL) documents the range and quantity of Training Equipment recommended to be procured or developed and, when applicable, delivered to the Commonwealth. The TEL lists the Training Equipment required by all of the Training programs identified by the Performance Needs Analysis Report (PNAR), and consolidates the lists of Training Equipment from each of the Learning Management Packages (LMPs). The TEL also identifies the Training Equipment that will need to be installed in Commonwealth Facilities.

3.2   The Contractor uses the TEL to:

   a.   document the outcomes of its analysis of Training Equipment requirements;

   b.   inform the Commonwealth of the set of Training Equipment that is recommended to be supplied under the Contract; and

   c.   assist in demonstrating that the Contractor's design for both the Mission System and the Support System represents a minimum Life Cycle Cost solution.

3.3   The Commonwealth uses the TEL to:

   a.   understand the full scope of Training Equipment required to provide Training when the Mission System and the Support System are in-service;

   b.   understand, evaluate and monitor the Contractor's scope of work, including with respect to the installation of Training Equipment; and

   c.   identify and understand the scope of Training Equipment to be procured by the Commonwealth under the Contract and/or from other sources.

4.   INTER-RELATIONSHIPS

4.1   The TEL is subordinate to the following data items, where these data items are required under the Contract:

   a.   Integrated Support Plan (ISP); and

   b.   Training Support Plan (TSP).

4.2   The TEL inter-relates with the following data items, where these data items are required under the Contract:

   a.   PNAR;

   b.   LMPs;

   c.   Life Cycle Cost Report and Model (LCCRM);

   d.   Support System Technical Data List (SSTDL);

   e.   Training Materials List (TML);

   f.   Task Analysis Report (TAR);

   g.   Support and Test Equipment Provisioning List (S&TEPL);

   h.   Recommended Spares Provisioning List (RSPL); and

   i.   Verification and Validation Plan (V&VP).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

   Nil.

6. PREPARATION INSTRUCTIONS

6.1 Generic Format and Content

6.1.1 The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2 The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2 Specific Content

6.2.1 Analysis of Training Equipment Requirements

6.2.1.1 The TEL shall summarise the analyses undertaken to produce the recommended Training Equipment List required under clause 6.2.2 (highlighting any differences from the analysis process described in the Approved TSP or the Approved ISP, whichever is the governing plan under the Contract), including:

a. a description of the methodologies used to:

　(i) identify the required Training Equipment, with cross-references to the PNAR;

　(ii) optimise the range and quantities of Training Equipment required, including through standardisation and offsetting of identified Training Equipment with the Training Equipment that is already held by the Commonwealth; and

　(iii) justify the range and quantities of Training Equipment to be procured;

b. identification of the data sources used;

c. identification of the key assumptions on which the analysis was based;

d. sample calculations (if applicable); and

e. any supporting analysis for each item of Training Equipment, including recommendations that result in make-or-buy decisions.

6.2.2 Training Equipment List

6.2.2.1 The TEL shall include:

a. all Training Equipment required by the Commonwealth; and

b. special purpose and special-to-type Training Equipment required for in-service contractor support, including support to be provided by the Contractor (Support).

6.2.2.2 This section shall list all Training Equipment recommended for use by the students, instructors, and course content managers or controllers, to provide Training and to maintain Training Materials, including:

a. simulators;

b. part-task trainers;

c. Computer Based Training (CBT) or Computer Aided Instruction (CAI) hardware and Software;

d. course instructional material development / support environment;

e. audio-visual material; and

f. tools, test equipment and calibration equipment.

6.2.2.3 The TEL shall, for each item of recommended Training Equipment, include (using sub-reports and cross-references as appropriate):

a. a specific record for each unique type of Training Equipment (ie, each line item);

b. identification details, including:

　(i) item name / provisioning nomenclature, including the model or type;

　(ii) NATO Stock Number (NSN), if known;

   (iii)   manufacturer's name and NATO Commercial and Government Entity (NCAGE) code;

   (iv)   manufacturer's reference number / part number;

   (v)   manufacturer's address; and

   (vi)   LSA Control Number, if applicable;

c.   details describing the nature and use of the Training Equipment, including:

   (i)   the course(s) that use the Training Equipment for delivery or support;

   (ii)   whether or not the Training Equipment has implications for safety and/or security (ie, where the risk pertaining to each of these areas is assessed as medium or higher as determined in accordance with the Approved risk-management processes for each area); and

   (iii)   identification details for related Software, if applicable;

d.   whether or not the Training Equipment is to be installed in Commonwealth Facilities including details of installation requirements, the Commonwealth Facilities, and the schedule;

e.   the recommended quantity of Training Equipment by organisation and location including Commonwealth, Contractor (Support), and Subcontractor (Support) locations (noting that the Contract may allow for the Commonwealth to elect to own specific items of Training Equipment that would be used by support contractors);

f.   provisioning information, including:

   (i)   a unit price, which shall be the Contractor's most favoured customer price for the delivery of that item of Training Equipment (with this data to be linked to the cost elements provided in the LCCRM);

   (ii)   source currency, for the unit price for the line item;

   (iii)   the recommended total quantity to be procured by the Commonwealth;

   (iv)   customs duties and other government duties, as applicable;

   (v)   a total price for each line item;

   (vi)   the provisioning lead time, and the identification of any Long Lead Time Items;

   (vii)   the delivery location; and

   (viii)   a recommended delivery date;

g.   identification details for related Technical Data, including as applicable:

   (i)   operator manuals;

   (ii)   set-up and pack-up procedures;

   (iii)   Maintenance manuals;

   (iv)   calibration procedures; and

   (v)   Software product information;

h.   cross-reference to the applicable Training Equipment Acceptance Test Procedure (or 'N/A' where Acceptance V&V is not practical / applicable); and

i.   recommendations for items of Training Equipment to be procured by the Commonwealth from sources external to the Contract, including for the purposes of standardisation or offsetting with Training Equipment that is already in the Commonwealth inventory.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-ILS-TNG-TSP-V5.3

2.   TITLE: TRAINING SUPPORT PLAN

3.   DESCRIPTION AND INTENDED USE

3.1   The Training Support Plan (TSP) describes the Contractor's plans, methodologies and processes for learning development, the implementation of Training and Training Support solutions, and for the delivery of trial courses and initial Training courses, as required under the Contract. The TSP describes how the Contractor plans to implement new and modified Training courses consistent with the Systems Approach to Defence Learning (SADL) model (ie, including analyse, design, develop, implement and evaluate phases).

Note: While the SADL recognises different methods of learning, the Contract seeks formal Training methods that can be delivered by a Defence unit or support contractor. Capitalised terms in this DID, which are not defined in the Glossary, are references to terms used and products defined in the SADL.

3.2   The Contractor uses the TSP to:

a.   define, manage and monitor the learning development activities under the Training Support elements of the Contract;

b.   integrate the Training Support program with other activities under the Contract; and

c.   ensure that those parties involved in the learning development program and the implementation of Training systems, understand their responsibilities, the processes to be used, and the timeframes involved.

3.3   The Commonwealth uses the TSP to:

a.   understand, monitor and evaluate the Contractor's approach to meeting requirements for learning development and the implementation of Training and Training Support systems under the Contract;

b.   gain assurance that the Training Support program will meet the requirements of the Contract; and

c.   understand the Commonwealth's involvement in the Contractor's learning development program, and Training Support systems implementation, including the provision of Commonwealth resources.

4.   INTER-RELATIONSHIPS

4.1   The TSP is subordinate to the following data items, where these data items are required under the Contract:

a.   Integrated Support Plan (ISP);

b.   Systems Engineering Management Plan (SEMP); and

c.   Verification and Validation Plan (V&VP).

4.2   The TSP inter-relates with the following data items, where these data items are required under the Contract:

a.   Performance Needs Analysis Report (PNAR);

b.   Training Recommendations Report (TNGRECR);

c.   Training Requirements Specifications (TRSs);

d.   Learning Management Packages (LMPs);

e.   Task Analysis Reports;

f.   Support System Technical Data List (SSTDL);

g.   Training Materials List (TML);

h.   Training Equipment List (TEL);

i.   Recommended Spares Provisioning List (RSPL);

j.   Support and Test Equipment Provisioning List (S&TEPL);

k.   Recommended Provisioning List (RPL);

l.   Acceptance Test Plans (ATPs);

m.   Acceptance Test Procedures (ATProcs);

n.   Acceptance Test Reports (ATRs);

o.   Contractor Transition Plan (CTXP); and

p.   Contract Master Schedule (CMS).

4.3   If Software is required for Training delivery or Training Equipment, the TSP will inter-relate with the following data items, where these data items are required under the Contract:

a.   Software Management Plan (SWMP); and

b.   Software List (SWLIST).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

SADL Guide   Defence Learning Manual chapter 4: the *Systems Approach to Defence Learning Practitioners' Guide*

The applicable ADF Service Training Manual, as specified in the Statement of Work

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   When the Contract has specified delivery of another data item that contains aspects of the required information, the TSP shall summarise these aspects and refer to the other data item.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   General

6.2.1.1   The TSP shall describe the objectives, scope, constraints, and assumptions for the Contractor's Training and Training Support (including learning development) activities.

6.2.1.2   Risks associated with the learning development program, and the implementation of Training and Training Support solutions, shall be documented in the Risk Register; however, the TSP shall describe the risk-management strategies associated with any global risks relating to learning development, through-life Training delivery, and Training Support.

6.2.1.3   The TSP shall highlight any differences between the Commonwealth's SADL Guide and related standards and ADF Service Training Manual(s) (if identified in the SOW), and the Contractor's plans for the analysis, design, development, implementation and the evaluation of Training.

6.2.2   Learning and Training Support Organisation

6.2.2.1   The TSP shall describe the Contractor's organisation for meeting the Training and Training Support (including learning development) requirements of the Contract, including:

a. the Contractor's organisations and management structure, including Approved Subcontractors, showing how the Training and Training Support organisation is integrated into higher-level management structures and organisations;

b. the interrelationships and lines of authority between all parties involved; and

c. the responsibilities of all parties involved, including the identification of the positions and individual(s) with managerial responsibility and accountability for meeting the Contract requirements for Training and Training Support.

6.2.3 Overview of Training and Training Support Activities

6.2.3.1 The TSP shall provide an overview of the Contractor's learning development, Training delivery and Training Support implementation program, including:

a. the major activities to be undertaken, when, and by whom;

b. a description of the Contractor's learning development program, including and how it maps to the life-cycle phases of the SADL model;

c. the integration of Subcontractor activities;

d. interfaces with other programs, including Systems Engineering and Integrated Logistic Support management, to ensure that Training outcomes are consistent with the Mission System and the Support System, and the analysis of operator and support tasks;

e. interfaces with the Configuration Management program, including the approach to ensure that Training is consistent with the Mission System Product Baseline;

f. the strategy, processes and controls for integrating Training and Training Support (including learning development) activities into existing Commonwealth systems and infrastructure; and

g. the Contractor's expectations with respect to the Commonwealth interfaces and interactions, including with Commonwealth agencies external to the project office.

6.2.4 Personnel Qualifications and Experience

6.2.4.1 The TSP shall summarise the numbers and categories of Contractor and Subcontractor personnel required to implement the Training and Training Support (including learning development) program.

6.2.4.2 The TSP shall list the personnel, or the categories of personnel, involved in the analysis, design and development of learning requirements, and the implementation and evaluation of the resulting Training programs. This list shall include:

a. the position title or role;

b. the names of those personnel (if available) in management / team leader positions;

c. the skills, competencies and formal qualifications required;

d. teaching experience, for instructor positions, describing the actual or expected experience for the position / role; and

e. technical experience, describing the technical experience and background required for the position / role.

6.2.4.3 The TSP shall identify any training to be undertaken by Contractor personnel to meet the Training (including learning development) program and implement the Training Support requirements of the Contract, including details of the proposed courses, schedule and personnel.

6.2.5 Analyse Phase

6.2.5.1 The TSP shall describe the Contractor's strategy, methodology, processes and tools for the conduct of the SADL 'Analysis Phase' and the identification of intervention solutions recommended for approval, including:

a. analysis of the Analyse Phase scope and processes to be undertaken including (as annexes to the TSP):

(i) 'Analyse Phase Scope Proposal' (SADL product AP1); and

        (ii)   'Risk Assessment Summary' (SADL product AP2);

b.   the analysis of performance needs and the development of the Performance Needs Analysis Report (PNAR), including:

        (i)   'Job Task Profiles' (SADL product AP3), identified from task analyses of operator and support tasks (and populated in the TAR);

        (ii)   'Job Specifications' (SADL product AP4);

        (iii)   'Target Population Profiles' (SADL product AP5); and

        (iv)   'Gap Analysis Statements' (SADL product AP6);

c.   the approach to stakeholder engagement, including the Defence authority for feasibility analysis endorsement if applicable;

d.   the conduct of feasibility analyses (and development of Feasibility Analysis Reports, SADL product AP7) and risk assessments for learning interventions, identifying the potential learning methods and related Support Resources; and

e.   when required under the Contract, the preparation of a TRS (SADL product AP9) for each applicable job / task that requires Training.

6.2.5.2   The TSP shall describe the Contractor's internal review and approvals processes for the documents produced during the Analyse Phase.

6.2.6 Design Phase

6.2.6.1   The TSP shall describe the Contractor's strategy, methodology, processes and tools for the SADL 'Design Phase' activities, including:

a.   analysis of the scope of the Design Phase, in order to establish an optimal method for designing a learning program, including:

        (i)   'Design Phase Scope Proposal' (SADL product DesP1); and

        (ii)   'Risk Assessment Summary' (updated SADL product AP2);

b.   analysis of the required Support Resources, including Facilities, Training Equipment and delivery personnel, to implement the requirements specified in the TRS(s), and the Training environments for the 'Environments Profile' (SADL DesP2):

c.   generation of learning outcomes and curriculum design, including:

        (i)   if required, development of the Mapping Matrix (SADL product DesP3); and

        (ii)   development of the draft Learning Outcomes (SADL product DesW3); and

d.   the analysis and design of the course structure and development of the Draft LMP (sections 1 to 3) for each Training course, including:

        (i)   preparation of learning management information (LMP section 1) for each identified course, including course descriptions, learning outcomes, assessments, 'Evaluation Plan / Statement' requirements and, if applicable, the identification of Units of Competency within the national register of Vocational Education and Training (VET);

        (ii)   the design of Training curricula (LMP section 2), spanning the range of courses required; and

        (iii)   the identification and evaluation of major Support Resource requirements for the learning program (LMP section 3).

6.2.6.2   The TSP shall describe how the SADL Design Phase activities will be integrated with the V&V program under the Contract, including how 'Evaluation Plans / Statements' (SADL section Des4.4) are integrated with V&V program requirements for ATPs and ATProcs.

6.2.6.3   The TSP shall describe the Contractor's strategy, methodology, processes and tools for optimising the range and quantity of Training courses, Training Equipment and Training Materials, for Training to be delivered under the Contract and through life, subsequent to the Contract, including as applicable for:

a.   Introduction Into Service Training;

b.   Conversion Training; and

c.   Sustainment Training.

6.2.6.4   The TSP shall describe the methodology to be used by the Contractor to develop the Training Equipment List (TEL).

6.2.6.5   The TSP shall describe the Contractor's internal review and approvals processes for the documents produced during the Design Phase.

6.2.7   Develop Phase

6.2.7.1   The TSP shall describe the strategy, methodology, processes and tools to be used for the SADL Develop Phase activities and the completion of each of the LMPs, including:

a.   the development of 'Learning and Assessment Materials' / Training Materials (LMP section 4);

b.   refinement and completion of the resource requirements (LMP section 3);

c.   the conduct of trial courses (for 'Learning and Development Solutions') and reporting the results in accordance with clause 6.2.7.3; and

d.   the finalisation of LMP sections 1 to 5.

6.2.7.2   In meeting the requirements of clause 6.2.7.1, the TSP shall:

a.   identify the standards applied to the development of Training Materials and describe how these standards have been tailored to meet the needs of the Contract; and

b.   describe how the Contractor will maintain consistency between the LMP and the Product Baselines for the Mission System and Support System Components for which Training is required.

Note: Participants for trial courses may include learners and other participants, such as future trainers and those required to evaluate Training, in order to inform the Verification and Validation activities for Training solutions, as required to achieve Acceptance under the Contract.

6.2.7.3   In respect of Training courses (Learning and Development Solutions) to be delivered for the purposes of the V&V program (eg, for the Acceptance of Training Equipment, Training Materials and/or Training courses as a whole), the TSP shall describe the arrangements for each 'trial course' including:

a.   the administrative arrangements, as applicable to the SADL Implement Phase described in clauses 6.2.8.2a to 6.2.8.2c;

b.   the conduct of Training Readiness Reviews (TNGRRs) prior to each applicable trial course, in accordance with clause 5.1.2 of the SOW;

c.   the Contractor's expectations for the Commonwealth and any Associated Parties, including for panelling learners and other participants, the provision of Facilities and other Support Resources, and for trial course delivery and assessment;

d.   the review and use of 'Evaluation Plans / Statements' (from LMP section 1);

e.   reporting the results as a Trial Report (SADL product DP1); and

f.   finalising the LMP, as applicable, following the evaluation of the trial course.

6.2.7.4   The TSP shall describe how the trial courses will be integrated with the V&V program under the Contract, including:

a.   how 'Evaluation Plans / Statements' are integrated with ATPs and ATProcs; and

b.   how 'Trial Reports' (used for SADL Evaluate Phase activities under clause 6.2.9) are integrated with ATRs.

6.2.7.5   The TSP shall describe the Contractor's internal review and approvals processes for the documents produced during the Develop Phase.

6.2.8   Implementation Phase

6.2.8.1   The TSP shall describe the Contractor's plans and schedule for the SADL 'Implement Phase', as required under the Contract, including as applicable to:

a.   the delivery of Training courses (ie, in addition to any trial courses) in accordance with clause 5.3.4 of the SOW, or as otherwise agreed between the parties; and

b.   the implementation of Training and Training Support systems for the provision of Sustainment Training (ie, subsequent to any Training delivered under the Contract).

6.2.8.2   In respect of Training courses (Learning and Development Solutions) to be delivered under the Contract the TSP shall describe, as applicable:

a.   preparation activities, including:

(i)   the scheduling of courses and panelling of learners / participants;

(ii)   the installation and setup of major items of Training Equipment and other Support Resources; and

(iii) the preparation of Training Materials;

b.   the delivery of Training courses (Learning and Development Solutions) including, as applicable:

(i)   any remaining pre-course preparation activities;

(ii)   the conduct of Introduction into Service, conversion, and any other category of Training courses specified in the Contract;

(iii) preparing for and conducting assessments; and

(iv)   post-delivery restoration of the training environment;

c.   post-course administration, including the recording and issuing of certificates / Records of Attainment;

d.   the Contractor's expectations for the Commonwealth and Associated Parties, including for panelling learners, the provision of Facilities and other Support Resources, and for Training course delivery and assessment; and

e.   reporting and reviewing the results from all Training and assessment activities, including the preparation of Learning Review Reports described by clause 6.2.8.4.

6.2.8.3   In respect of Training and Training Support systems to be implemented for Sustainment Training (to be provided by the Commonwealth, Associated Parties, and/or under a subsequent contract) the TSP shall include details for, as applicable:

a.   the preparation for Sustainment Training including, if applicable, for courses that will not be delivered under the Contract but that depend on the Training Equipment and Training Materials supplied under the Contract;

b.   if not required for Training delivered under the Contract, any additional requirements to establish capabilities to enable on-going Training and Training Support, such as:

(i)   course management systems and/or a Software environment for computer based training; and

(ii)   any additional Facilities, including the installation of major items of Training Equipment in those Facilities; and

c.   the Contractor's expectations for the Commonwealth and any Associated Parties, including for the preparation of Facilities and the provision of other Support Resources, with reference to the CTXP when applicable.

6.2.8.4   The TSP shall define the content for the reports to be provided to the Commonwealth following each Training course delivered under the Contract, including:

a.   the learning review reporting requirements detailed within the applicable LMP;

b.   an overview of the learning solution(s) and Training conducted, course structure and content, the participants (eg, typical learners or future trainers under training) and the learning environment;

c.   a summary of the data collected, with details included in an annex or provided as supporting documentation;

d.   a summary of conclusions drawn from the data collected, including with respect to the effectiveness of the Training design and implementation;

e.   identifying any required updates to Training Materials;

f.   any other recommendations or issues to be addressed;

g.   any additional information required to inform subsequent Learning and Development Solution and Training evaluation activities; and

h.   if the Training course is also conducted for purposes of V&V (eg, for the Acceptance of Training Equipment, Training Materials or an existing course / learning solution as a whole), any additional information required to develop ATRs.

6.2.8.5   If a Training course (or module) is, or will be part of, a nationally recognised VET qualification, the TSP shall describe the activities required for the LMP to be endorsed by the applicable regulator.

6.2.9   Evaluate Phase

6.2.9.1   The TSP shall describe the Contractor's program of activities for the SADL 'Evaluate Phase', for the evaluation of learning solutions, Training courses and Training Support.

6.2.9.2   The TSP shall describe the Contractor's plans, processes and tools to be used for the Evaluate Phase, including as applicable:

a.   the key risk factors and risk management processes;

b.   evaluation plans and preparation, including review of the applicable Evaluation Plan / Statement (from LMP section 1) and identification of data requirements;

c.   evaluation in accordance with the Evaluation Plan / Statement;

d.   analysis and interpretation of data;

e.   production of the Evaluation Report (refer to SADL section 5 resources); and

f.   participation in the Learning Review Board (in an advisory capacity).

6.2.9.3   When applicable, the TSP shall describe how the SADL Evaluate Phase activities will be integrated with the V&V program, including how planning, evaluation and reporting activities are integrated with V&V program requirements for ATPs, ATProcs and ATRs.

6.2.10   Training Equipment – Development

6.2.10.1   The TSP shall describe the strategy, methodology, processes, tools and schedule for:

a.   the identification of required Training Equipment;

b.   defining the range, quantity and distribution of Training Equipment;

c.   rationalising of the list of Training Equipment defined in either the TEL or the RPL, whichever is required under the Contract;

d.   implementing the acquisition of Training Equipment, including any considerations for Long Lead Time Items (LLTIs);

e.   the delivery and installation of Training Equipment at each location, as applicable;

f.   the V&V of Training Equipment; and

g.   if applicable, the modification of existing Training Equipment.

6.2.10.2   In addressing the requirements of clause 6.2.10.1, the TSP shall also address:

a.   optimisation of the range, location and quantity of Training Equipment (identified in the TEL or the RPL as required under the Contract), including undertaking standardisation and offsetting of the Training Equipment needed against the Training Equipment that is already in-service with the Commonwealth;

b.   the processes and methodology used to evaluate the suitability of any Training Equipment proposed by the Commonwealth for standardisation and offsetting;

c.   the processes and methodology used to identify and evaluate any Software required to operate and support the Training Equipment;

d.   the Software and Technical Data to be delivered with the Training Equipment, with reference to entries in the SSTDL and SWLIST, as applicable;

e.   the management of Training Equipment-related:

    (i)   Subcontractor contractual arrangements;

    (ii)   quality assurance provisions; and

    (iii)   Defect notification and rectification provisions and requirements;

f.   any Training associated with the use and support of the Training Equipment;

g.   the identification of applicable design standards for the development of new Training Equipment, including hardware and associated Software products; and

h.   the configuration documentation required for each item of Training Equipment.

6.2.11 Training Equipment Management Categories

6.2.11.1   The TSP shall define a Training Equipment category matrix to facilitate management of the development, V&V and Support Resource determination efforts for various categories of Training Equipment (with this category included in the TEL or the RPL, whichever is required under the Contract). The Training Equipment category matrix shall address:

a.   **Developmental Maturity**. Training Equipment shall be classified as:

    (i)   'NDI/COTS', when the item will be provided as a Supply without modification.

    (ii)   'Developmental – Minor', when the equipment is subject to a modification action that is classed as a Minor Change, to make it suitable as a Supply.

    (iii)   'Developmental – Major', when the equipment is specifically developed for the Contract, or subject to a modification action that is classed as a Major Change, to make it suitable as a Supply.

b.   **Complexity**. The complexity of Training Equipment is recognising by the functions it performs. For example, a Mission System simulator may be classified as 'complex', whereas a COTS video projector could be classified as 'simple'.

c.   **Significance**. Training Equipment classified as 'Developmental – Minor' or 'Developmental – Major' are to be further categorised as 'significant' or 'non-significant' by using the process defined in response to clause 6.2.11.2.

6.2.11.2   The TSP shall define the Contractor's method to determine significance within the category matrix. Significance is an assessed level of risk associated with the design or design change, and is defined as a combination of the potential consequences (eg, risk to safety during Training or the subsequent performance of skills trained) and the likelihood of that consequence due to shortfalls in the design or design change (as applicable).

6.2.11.3   For each Training Equipment category identified, the TSP shall detail the methodology, processes and procedures for:

a.   identifying and managing the engineering effort for the design or design change;

b.   the identification of Product Specifications;

c.   identifying V&V requirements; and

d.   identifying Support Resource requirements.

6.3 Annexes

6.3.1   The TSP shall include annexes for the applicable:

a.   Analyse Phase Scope Proposal (SADL product AP1); and

b.   Risk Assessment Summary (SADL product AP2).

DATA ITEM DESCRIPTION

1.   **DID NUMBER: DID-PM-AIC-AICP-V5.3**

2.   **TITLE: AUSTRALIAN INDUSTRY CAPABILITY PLAN**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The Australian Industry Capability (AIC) Plan sets out the Contractor's strategy, plans, processes and responsibilities for achieving the AIC Objectives and satisfying the AIC Obligations, including describing the management of the AIC program for the period of the Contract. To the maximum practicable extent, the AIC Plan is written to contain specific and measureable commitments by the Contractor.

3.2   The Contractor uses the AIC Plan to:

   a.   set out the strategies, plans, processes, responsibilities and timeframes for the delivery of the AIC program and achieving the AIC Objectives and satisfying the AIC Obligations;

   b.   manage, coordinate and monitor the delivery of the AIC program;

   c.   ensure that those parties (including AIC Subcontractors) who are undertaking AIC-related activities understand their responsibilities, the commitments to be achieved, and the time-frames involved;

   d.   integrate the AIC activities being performed by AIC Subcontractors with the Contractor's AIC activities to ensure that a coherent and cohesive AIC program is realised; and

   e.   provide assurance to the Commonwealth that the Contractor's plan for delivering the AIC program will enable the AIC Objectives and AIC Obligations to be achieved while satisfying the other requirements of the Contract.

3.3   The Commonwealth uses the AIC Plan to:

   a.   evaluate and gain assurance that the Contractor's AIC program will achieve the AIC requirements of the Contract and, if applicable, the Contract (Support);

   b.   provide a basis for monitoring and assessing the Contractor's performance in relation to the execution of the AIC program;

   c.   assess the Contractor's willingness and ability to work collaboratively with the Commonwealth and Australian Industry to achieve the AIC Objectives and AIC Obligations; and

   d.   identify the Commonwealth's involvement in the AIC program.

4.   **INTER-RELATIONSHIPS**

4.1   The AIC Plan inter-relates with the following data items, where these data items are required under the Contract:

   a.   Project Management Plan (PMP);

   b.   Supply Chain Management Plan (SCMP);

   c.   Defence-Required Australian Industrial Capabilities Plan (DRAICP);

   d.   Research and Development Management Plan (R&DMP);

   e.   Materiel Procurement Strategy (MPS);

   f.   Materiel Procurement Business Case (MPBC);

   g.   Contract Work Breakdown Structure (CWBS);

   h.   Contract Master Schedule (CMS);

   i.   Contract Status Report (CSR);

j.   Australia and New Zealand (ANZ) Subcontractor Technical Data List (ASTDL);

k.   Support System Description (SSDESC); and

l.   Support System Technical Data List (SSTDL).

4.2   The AIC Plan inter-relates with the AIC requirements at Attachment F, the associated AIC financial information in Attachment B, and the relevant delivery requirements in Attachment C.

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

2018 DES	2018 Defence Export Strategy
2019 DPIP	2019 Defence Policy on Industry Participation
2024 DIDS	2024 Defence Industry Development Strategy
	2019 Defence Industry Skilling and STEM Strategy
	ACE Measurement Rules

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   When the Contract has specified delivery of another data item that contains aspects of the required information, the AIC Plan shall summarise these aspects and refer to the other data item.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.1.4   The AIC Plan shall be written in accordance with the following requirements:

a.   the Contractor's commitments are to be separated from any background or descriptive information;

b.   the background or descriptive information is to be no more than 25% of the overall size of the AIC Plan (measured by page count), and is to be clearly identified as background and/or descriptive material;

c.   the Contractor's commitments are to be set out using the following terminology as appropriate:

(i)   except when using one of the forms in paragraph (ii) below, the words, "the Contractor shall […]", are to be used to set out absolute commitments;

(ii)   the words, "the Contractor shall use its best endeavours to […]" or "the Contractor shall use its reasonable endeavours to […]", are to be used when the Contractor is not able to make an absolute commitment, but a qualified commitment is required; and

(iii)   the words, "the Contractor may […]", are to be used when there is little-to-no certainty that a particular path or decision will actually occur or be made, or the matter is discretionary; and

d.   any matters or assumptions which qualify the Contractor's commitments are to be clearly stated individually in respect of each commitment, and the relevant commitment is to be expressed to be subject to those qualifications using specific cross references. Any background or descriptive information is not to qualify the Contractor's commitments. Generic words, such as "where appropriate", "when appropriate", or "as required" are not to be used to qualify the Contractor's commitments.

6.2 Specific Content

6.2.1 AIC Program Summary

Note: This section should be no more than three pages. It should provide an introduction and summary of the strategic intent, objectives and commitments underpinning the AIC Plan consistent with the Australian Industry policy requirements identified at clause 5.

6.2.1.1   The AIC Plan shall provide a summary of:

    a.   the Contractor's strategy for achieving each of the AIC Objectives, including summarising the Contractor's and AIC Subcontractors' commitments over the period of the Contract for achieving these AIC Objectives;

    b.   any Sovereign Defence Industrial Priorities (SDIPs), including any Detailed SDIPs, applicable to the Contract;

    c.   the Contractor's and AIC Subcontractors' commitments for delivering against the Australian Industry Activities (AIAs), including Defence-Required Australian Industrial Capabilities (DRAICs), applicable to the Contract;

    d.   the overall Prescribed ACE Percentage for the Contract;

    e.   the Contractor's and AIC Subcontractors' commitments over the period of the Contract to promote innovation and research and development (R&D) relating to the Contract and/or the Supplies;

    f.   the Contractor's commitments to employing veterans (previous members of the Australian Defence Force), as applicable to the Contract;

    g.   the Contractor's and AIC Subcontractors' commitments to Australian Industry over the longer term, particularly Small-to-Medium Enterprises (SMEs), including:

        (i)   newly-proposed long-term partnering arrangements with particular Australian Entities;

        (ii)   enhancements to existing long-term partnering arrangements with particular Australian Entities; and

        (iii)   long-term engagement of particular Australian Entities in the Contractor's supply chain; and

    h.   any other commitments or matters of note that demonstrate the Contractor's commitment to achieving the AIC Objectives.

6.2.2 AIC Management

6.2.2.1   The AIC Plan shall:

    a.   identify the AIC manager, including name, title, contact details and the AIC manager's responsibilities, position in the organisation, and describing the scope of influence of the AIC manager to promote and achieve the AIC Objectives;

    b.   describe the organisational arrangements for managing and undertaking the AIC program and related activities for the Contract, including:

        (i)   identifying the number of people involved in the AIC program and their respective responsibilities; and

        (ii)   separately identifying the people involved in the management of DRAICs, supply chain activities and R&D (where these activities are separately identified within the SOW); and

    c.   where AIC Subcontractors are applicable to the Contract, identifying the arrangements and division of responsibilities between the Contractor's AIC organisation and each of the AIC Subcontractor's AIC organisations.

6.2.2.2   The AIC Plan shall describe:

    a.   the assurance process used to ensure that the AIC Obligations are met and the AIC Objectives are being pursued, including:

        (i)   the data to be captured, monitored and reported on;

        (ii)   the nature of, and the indicative frequency of, assurance activities; and

        (iii)   the reporting process for assurance activities planned / conducted during each reporting period;

    b.   the strategy and processes used to identify and remediate potential or actual problems with achieving the AIC Obligations, including:

        (i)   describing the different processes to be employed when the problems are internal to the Contractor or are due to a Subcontractor, including the triggers that will be used to identify potential or actual problems;

        (ii)   the processes to be used to assist Australian Entities to address identified problems; and

        (iii)   the processes to be followed and associated timeframes to escalate the identified problems within the Contractor's organisation, including to advise the Commonwealth of the problems in accordance with clauses 4 and 11.2.2 of the COC; and

    c.   the details and outcomes that will be recorded in relevant Contract progress reporting.

6.2.2.3   If an AIC Initiatives Program is a requirement of the Contract, the AIC Plan shall describe the Contractor's arrangements for managing the program, including:

    a.   the identification of the individual who has overall responsibility for the program;

    b.   how the program will be conducted and resourced to ensure that the costs of operating the program are minimised, while the benefits are maximised;

    c.   the mechanisms to be used to report performance and progress against the AIC Objectives;

    d.   the methodology for integrating the AIC Subcontractors into the program, including the specific mechanisms to incentivise Subcontractor involvement in the program (if any);

    e.   the methodology, systems, processes and tools to be used to:

        (i)   assist with the identification of potential Australian Industry Opportunities (AIOs);

        (ii)   undertake the development of the documentation required by the SOW to support the program (eg, MPBC); and

        (iii)   implement and report on the implementation of AIOs.

6.2.3   AIC Schedule

6.2.3.1   The AIC Plan shall include an AIC Schedule that details the activities being performed under the Contract and over the period of the Contract in Australia or New Zealand and/or by each Australian Entity.

6.2.3.2   The AIC Schedule required by clause 6.2.3.1 shall be in the format defined in Annex B, or as otherwise agreed between the parties.

6.2.4   Opportunities for Australian Industry

Note: The Contractor's and AIC Subcontractors' commitments to provide work to particular ANZ Subcontractors are provided in response to clause 6.2.7 and 6.2.8, respectively.

6.2.4.1   The AIC Plan shall include a table (refer Table 1), at Level 3 of the CWBS, which identifies those elements of the Contract for which the exact source of supply for particular goods and services has not yet been finalised (including goods that are subject to make or buy decisions by the Contractor), including:

    a.   a description of the specific goods and services for which the source of supply has not yet been finalised, including in relation to any goods and/or services that the Contractor will be acquiring through an Approved Subcontractor (ie, the Approved

Subcontractor has not yet finalised the source of supply for the elements that it will be providing to the Contractor and these elements could be acquired through a lower-tier Subcontract);

b.   identification as to whether or not the Contractor considers that one or more opportunities exist for Australian Industry to provide those goods and/or services;

c.   if the Contractor considers that one or more opportunities exist, a brief description of the nature and scope of those opportunities, including:

(i)   the identification of the Australian Entities that have been identified by the Contractor as potentially suitable (if any), including whether or not they are SMEs and a brief description of the goods and/or services that those companies offer;

(ii)   the likely timings associated with each opportunity; and

(iii)   whether or not the Contractor plans to compete the opportunity with overseas companies; and

d.   if the Contractor considers that opportunities for Australian Industry do not exist for the particular goods and/or services, the rationale for that assessment, including whether or not such an opportunity may exist at some future time and, if so, the conditions required for the opportunity to be considered viable.

Note: For clarity, the table should not include any elements for which the Contractor has already made a binding commitment to an Australian supplier.

Table 1: Opportunities for Australian Industry

CWBS Level 3 Element	Description of the goods / services for which the source of supply is still to be determined	Opportunities for the participation of Australian Industry	Description of opportunity, or rationale for no opportunity

6.2.4.2   Where the Contractor has proposed in its tender response (or subsequently) to utilise a particular Australian or New Zealand supplier, but the actual supplier, or the scope of actual goods and/or services to be provided from that supplier, will be determined as an outcome of a market testing process that is yet to be conducted, the AIC Plan shall identify:

a.   the supplier; and

b.   the details in relation to the nature and timing of the associated market testing process.

6.2.5   Contract Market Testing / Subcontract Establishment

Note: This clause requires consideration of the industry engagement processes, such as the use of industry associations, supplier advocates, professional networks, the Office of Defence Industry Support (ODIS), AusIndustry, Supply Nation or other forms of advertising and/or promotion used to publicise opportunities for Australian Industry.

6.2.5.1   If a SCMP is not a requirement under the Contract, the AIC Plan shall describe the approach, actions, processes and clear commitments in relation to industry engagement, market testing and Subcontract establishment that will be undertaken by the Contractor to promote and achieve the AIC Objectives and satisfy the AIC Obligations, particularly in relation to the opportunities identified in response to clause 6.2.4, including in relation to:

a.   scanning Australian Industry to identify potential Australian or New Zealand suppliers to deliver the contracted requirements and further the AIC Objectives, including the timeframes when the Contractor commits to undertaking these activities (which, for clarity, may be defined in relation to Milestones);

b.   advising Australian Industry of the potential opportunities to participate in the work required under the Contract, such as advertising through industry associations, forums and the Contractor's website, and the timeframes when the Contractor commits to undertaking these activities (which, for clarity, may be defined in relation to Milestones);

c.   establishing Subcontracts with Australian Industry, including:

(i)   an overview of the Contractor's standard procurement processes, including identifying the typical linkages that exist with the Contractor's design teams for the Mission System and Support System;

(ii)   a description of how procurement activities will be structured, including in relation to timings and use of selection criteria, to maximise opportunities for Australian Industry to participate in the procurement activities on a fair and equitable basis;

(iii) a description of any standard contract templates that will be used by the Contractor, including an overview of the factors that the Contractor will take into consideration when establishing the contract conditions for a Subcontract (eg, in relation to pricing model, liability regime and Intellectual Property (IP)); and

(iv)   describing how any commercial requirements and constraints, which may apply to particular types of procurement activities, will be addressed, including in relation to IP, security, and export controls, so that the widest possible market engagement can be undertaken to satisfy the AIC Objectives; and

d.   ensuring that AIC Subcontractors will undertake their own market testing activities to promote and achieve the AIC Objectives.

Note: Refer to https://www.veteransemployment.gov.au/ regarding the National Veterans Employment Program.

6.2.5.2   The AIC Plan shall describe the Contractor's commitments to employ veterans (previous members of the Australian Defence Force), including through suppliers that employ veterans, as part of delivering the Contract requirements.

6.2.6   Creation, Enhancement and Maintenance of ANZ Industrial Capabilities

Note: This clause is intended to address all ANZ Industrial Capabilities being created, enhanced or maintained under the Contract and not be limited to those Industrial Capabilities that are identified as AIAs in Attachment F.

6.2.6.1   The AIC Plan shall identify and describe the Contractor's commitments and any AIC Subcontractors' commitments under the Contract in relation to the creation or enhancement of Industrial Capabilities in Australia or New Zealand, including:

a.   a brief description of each Industrial Capability, including:

(i)   the identification (where known) of the Australian Entity(ies) in which the Industrial Capability will be created or enhanced; and

(ii)   whether or not the Industrial Capability is identified as an AIA in Attachment F;

b.   the outcomes being sought in terms of:

(i)   the specific Industrial Capabilities to be created or enhanced, including describing the specific creation of, or enhancements to, skills, knowledge, systems, technology and/or infrastructure;

Note: The purpose of the following clause is to establish the exact boundaries of each Industrial Capability. For example, an Industrial Capability established to undertake Software development may only undertake a portion of the overall work in relation to the Software to be delivered under the Contract.

(ii)   the utilisation of the newly-created or newly-enhanced Industrial Capabilities by the Contractor and/or the AIC Subcontractors under the Contract and, if applicable, the Contract (Support) (ie, the specific work to be performed by the Industrial Capability, and explicitly identifying any work that could be done

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by the Industrial Capability, but is proposed to be undertaken by overseas companies); and

    (iii)   the potential opportunities that may exist more broadly to utilise the Industrial Capabilities for future work with the Contractor and/or AIC Subcontractors, including for future work with Defence;

Note: The purpose of the following clause is to obtain the Contractor's and, if applicable, the AIC Subcontractors' plans (ie, the who, what, when, where, how and why), as a series of commitments, for implementing each Industrial Capability.

c.   the specific initiatives and activities to be undertaken to achieve these outcomes, including:

    (i)   where the Industrial Capabilities will be established and/or evolved in Australian Entities other than the Contractor or AIC Subcontractors, the identification of the specific sectors of Australian Industry for which assistance will be provided, including, where known, the specific companies to receive the assistance (by company name and ACN/NZCN) and whether or not the company is an SME;

    (ii)   the specific commitments of the Contractor, AIC Subcontractor(s) and, where applicable, other companies (eg, a parent company or an Original Equipment Manufacturer (OEM) under a Subcontract) to achieve the identified outcomes, including in relation to the transfer of technology, know-how, know-why, and TD/IP (cross-referring to the ASTDL, as appropriate, if such a data item is required under the Contract);

    (iii)   the timeframes and costs associated with these commitments, including stages of implementation, when any new or enhanced Industrial Capabilities will be available, a time-phased estimate of the resources required by the Contractor and/or AIC Subcontractors to undertake the commitments, and whether or not the commitments involve the utilisation of government grants;

    (iv)   any assumptions, constraints and/or risks associated with the Industrial Capability and/or the plan for its creation, enhancement or maintenance (as applicable), including the proposed mechanisms and/or activities to address or mitigate the identified assumptions, constraints and risks;

    (v)   whether or not there are any specific Authorisations (eg, Export Approvals) required to enable the initiatives to be undertaken and, if so, the specific details and timings (which, for clarity, may be defined in relation to Milestones) associated with each different type of Authorisation;

    (vi)   whether or not these initiatives relate to skills requirements identified within the Defence skilling programs – either currently targeted or future gaps that have been identified – and, if so, the specific details in relation to each skill category being targeted; and

    (vii)   any expectations of the Contractor with respect to the Commonwealth associated with the Industrial Capability and/or the plan for its creation, enhancement or maintenance (as applicable);

d.   how achievement of the specific enhancements and/or outcomes will be measured and reported; and

e.   any planned follow-on activities or opportunities to ensure that the new or enhanced Industrial Capabilities are maintained and will remain viable.

6.2.6.2   The AIC Plan shall identify and describe the Contractor's commitments and any AIC Subcontractors' commitments under the Contract to support the maintenance of existing Industrial Capabilities within Australian Industry, including:

a.   the specific sectors of Australian Industry for which assistance will be provided or activities will be undertaken, including, where known, the specific companies to receive the assistance (by company name and ACN/NZCN) and whether or not the company is an SME; and

b.   the specific activities and/or initiatives to be undertaken, including a brief description as to how these activities assist with the maintenance of existing Industrial Capabilities in Australia or New Zealand.

Note: The 2018 Defence Export Strategy sets out the Australian Government's approach to achieving greater export success in order to build a stronger, more sustainable and globally competitive Australian Defence Industry.

6.2.6.3   The AIC Plan shall identify any commitments of the Contractor or AIC Subcontractors to promote the long-term sustainability of Industrial Capabilities within Australian Industry, including identifying and describing:

a.   any new Australian Industry company that has entered, or will be entering, the Contractor's global supply chain as a result of the Contract, including:

(i)   the nature of each company's current or projected contribution; and

(ii)   the estimated timeframe for each new company to enter the Contractor's global supply chain; and

b.   how Australian Industry has or will be provided with opportunities to enter export markets or facilitate domestic sales of goods or services as a result of the Contract.

6.2.7   Contractor Activities Contributing to ACE

Note: The Contractor's activities will be described in various Contract plans, including the CWBS and CMS. The intent here is for the AIC Plan to set out the Contractor's activities contributing to ACE, which (for clarity) will summarise any AIC Subcontractor activities and cross-refer to the response to clause 6.2.8 for details. The activities to be addressed through this clause include:

a.   all activities being conducted directly by the Contractor, which are classified as ACE;

b.   all activities being conducted by Subcontractors, which are classified as ACE (referring to the responses to clause 6.2.8 for AIC Subcontractors); and

c.   where the Contractor is an overseas entity, all activities being conducted by the Contractor in support of ANZ Subcontractors, which are not classified as ACE, but enable ACE through the related ANZ Subcontract (eg, delivery of training and TD to transfer skills).

6.2.7.1   For those Contractor activities contributing to ACE (including Approved Subcontractor activities), the AIC Plan shall provide a breakdown at Level 3 of the CWBS, which:

a.   provides a breakdown that clearly describes the elements of the work being conducted in Australia or New Zealand (by postcode) and the elements being conducted overseas (by country), including:

(i)   identifying the source(s) of supply for the major Supplies being provided under the Contract; and

(ii)   separately identifying the activities being conducted by the Contractor from those being conducted by each AIC Subcontractor and cross-referring to the response provided to clauses 6.2.6 and/or 6.2.8 where appropriate;

b.   separately identifies the Contractor's activities in direct support of each Subcontractor activity being conducted in Australia or New Zealand (ie, identifying the specific activities pertaining to each Subcontractor), including:

(i)   identifying whether the Subcontractor is an SME; and

(ii)   cross-referring to the response provided to clauses 6.2.6 and/or 6.2.8, and supplemented by the identification of any other support being provided by the Contractor to those Subcontractors, such as (for example) the provision of technical assistance, training, TD and equipment, and the secondment of Contractor personnel;

c.   if the delivery of Industrial Capabilities as DRAICs or other AIAs are applicable to the Contract, identifies the specific AIAs to be created, enhanced or maintained by the Contractor (and/or a Subcontractor to the Contractor, including through an AIC

Subcontractor), cross-referring to the response provided to clauses 6.2.6 and/or 6.2.8 where appropriate;

d. if a R&DMP is not required under the Contract and subject to clause 6.1.2 (when such a plan is required), separately identifies the Contractor's activities to foster and promote innovation and to undertake R&D in conjunction with Australian Industry, Defence Science and Technology Group (DSTG), Commonwealth Scientific and Industrial Research Organisation (CSIRO), state governments, academia and other Commonwealth agencies in support of the Commonwealth's requirements under the Contract and, if applicable, the Contract (Support); and

e. if not provided in the financial information provided in Attachment B, provides a breakdown of the ACE into its component elements (as determined in accordance with the ACE Measurement Rules applied under the Contract), including labour and materials costs (where not included as Subcontract prices), other direct costs (eg, travel and training), Subcontract prices (cross-referencing AIC Subcontractor prices under clause 6.2.8.1e), indirect overheads (including general and administrative costs incurred by the Contractor), management reserve as applicable, and the Contractor's profit.

6.2.7.2   For the set of Contractor activities contributing to ACE, the AIC Plan shall provide a summary of the Australian and/or New Zealand workforce profile for the Contractor over the period of the Contract, as derived from the Staff / Skills Profile provided in the PMP and which identifies:

a. any increase or decrease in the Contractor's total Australian and/or New Zealand workforce numbers as an outcome of the Contract, including by location (postcode); and

b. the areas impacted (eg, full-time vs part-time employees, apprenticeships and particular labour categories impacted), using the same breakdown of the workforce into the labour categories identified in the Staff / Skills Profile in the PMP.

6.2.7.3   Where the Contractor's activities contributing to ACE are facilitated or made possible due to technology transfer (or similar assistance) from another company (eg, from a parent company or from an OEM under a Subcontract), the AIC Plan shall describe the specific commitments of the other company(ies) to enable this work to be undertaken in Australia or New Zealand, including:

a. specific details in relation to transfer of technology, TD/IP, know-how and know-why; and

b. the mechanisms and timeframes associated with this assistance.

6.2.8   AIC Subcontractor Activities Contributing to ACE

Note: The activities to be addressed through this clause include:

a.   all activities being conducted directly by the AIC Subcontractor, which are classified as ACE;

b.   all activities being conducted by Subcontractors to the AIC Subcontractors (including any lower-tier AIC Subcontractors), which are classified as ACE; and

c.   all activities being conducted by the AIC Subcontractor in support of ANZ Subcontractors, which are not classified as ACE (but do contribute to ACE through the resulting ANZ Subcontract), under those circumstances where the AIC Subcontractor is an overseas entity.

6.2.8.1   For those AIC Subcontractor activities contributing to ACE, the AIC Plan shall provide the following information as a separate annex for each AIC Subcontractor:

a. the company undertaking the activities, including the ACN/NZCN and head office address;

b. a description of the work being undertaken by the AIC Subcontractor, including:

(i)   the outcomes to be achieved, products to be delivered, and/or services to be provided;

       (ii)   the WBS Element(s) in the CWBS in which the work effort is captured;

       (iii)   the main location(s) where the work will be undertaken;

       (iv)   whether or not the AIC Subcontractor is an SME;

       (v)   whether or not the AIC Subcontractor is engaging an SME as a Subcontractor and, if so, the nature and scope of the work to be undertaken by the SME, including outcomes to be achieved, products to be delivered, and/or services to be provided; and

       (vi)   the broader benefits being derived by the AIC Subcontractor and each SME, including (for example) new skills, technology transfer, and access to the IP needed to undertake the work;

c.   if the delivery of Industrial Capabilities as DRAICs or other AIAs are applicable to an AIC Subcontractor, identifies the specific AIAs to be created, enhanced or maintained by the AIC Subcontractor (and/or a Subcontractor to the AIC Subcontractor), cross-referring to the response provided to clause 6.2.6 where appropriate;

d.   if a R&DMP is not required under the Contract and subject to clause 6.1.2 (when such a plan is required), separately identifies the AIC Subcontractor's activities to foster and promote innovation and to undertake R&D in conjunction with Australian Industry, DSTG, CSIRO, state governments, academia and other Commonwealth agencies in support of the Commonwealth's requirements under the Contract and, if applicable, the Contract (Support);

e.   if not provided in the financial information provided in Attachment B, provides a breakdown of the ACE for each AIC Subcontractor into its component elements (as determined in accordance with the ACE Measurement Rules applied under the Contract), including labour and materials prices (where not included as Subcontract prices, for Subcontractors to the AIC Subcontractor), other direct prices (eg, travel and training), and Subcontract prices; and

f.   provides a summary of the workforce profile for any Australian or New Zealand AIC Subcontractor over the period of the Contract, which identifies:

       (i)   any increase or decrease in the Subcontractor's total workforce numbers as an outcome of the Contract, including by location (postcode); and

       (ii)   the areas impacted (eg, full-time vs part-time employees, apprenticeships and particular labour categories impacted).

6.2.8.2   Where the AIC Subcontractor's activities contributing to ACE are facilitated or made possible due to technology transfer (or similar assistance) from another company (eg, from a parent company or from an OEM under a Subcontract), the AIC Plan shall describe the specific commitments of the other company(ies) to enable this work to be undertaken in Australia or New Zealand, including:

a.   specific details in relation to transfer of technology, TD/IP, know-how and know-why; and

b.   the mechanisms and timeframes associated with this assistance.

Annexes

A. Public AIC Plan

B. Australian Industry Capability Schedule

ANNEX A TO DID-PM-AIC-AICP

PUBLIC AIC PLAN

Notes:

a. **The Public AIC Plan is designed to facilitate transparency and promote opportunities for Australian Industry to compete on merit throughout the period of the Contract by publishing these opportunities on the Commonwealth's internet website.**

b. **The initial Public AIC Plan is to be developed from the successful tender response and any negotiated changes (as may be included in Attachment K) prior to being submitted to the Commonwealth for Approval.**

c. **Updates to the Public AIC Plan are to be prepared, in accordance with the CDRL, to ensure that the plan accurately reflects forthcoming industry opportunities for publication on the Commonwealth internet website.**

1.   GENERIC FORMAT AND CONTENT

1.1   The Public AIC Plan shall be written on a company letterhead, signed by a duly authorised officer of the Contractor, and presented in a format that can be published on a Commonwealth internet website.

1.2   The Public AIC Plan shall only contain information of an appropriate security classification for publication on a public Internet website.

1.3   The Public AIC Plan shall, to the extent practicable, comply with the Australian Government Style Manual, which can be found at: ***https://www.stylemanual.gov.au/***.

1.4   The Public AIC Plan shall include the information required under section 2, including using the same headings and structure.

2.   SPECIFIC CONTENT: PUBLIC AIC PLAN

2.1   Company Details

2.1.1   The Public AIC Plan shall include the following company details:

a.   company name;

b.   address for the relevant company office; and

c.   website details.

2.2   Executive Summary

2.2.1   The Public AIC Plan shall contain an *executive summary* that includes:

a.   the Defence project number and the Contract number;

b.   an overview of the scope of the Contract, including the major equipment systems and services to be provided and the scope of work to be performed by Australian Industry;

c.   the Contract Price and the overall Prescribed ACE Percentage for the Contract;

d.   the Contract duration and forecast completion date; and

e.   identification of the SDIPs, Detailed SDIPs, and the AIAs applicable to the Contract, including any DRAICs.

2.2.2   This section of the Public AIC Plan shall be consistent with the "AIC Program Summary" required under clause 6.2.1.

2.3   Subcontracted Work

2.3.1   The Public AIC Plan shall describe the work to be subcontracted to Australian Industry, including:

a.   a summary of the overall scope of work to be subcontracted;

b.   the total forecast value of Subcontracts (in Australian dollars at Base Date), including those Subcontracts that have been signed;

c.   ACE, as a percentage of the total forecast value of the Subcontracts;

d.   for each AIC Subcontractor, the company name, location and nature of work that they have been contracted to perform; and

e.   a list of Subcontractors within the supply chain that are a Small to Medium Enterprise, and/or that have signed the Veterans employment commitment.

2.3.2   In addition to the information required by clause 2.3.1d, the Public AIC Plan should summarise any other notable Subcontracts (ie, other than Subcontracts with AIC Subcontractors) that demonstrate and promote the benefits of the Contract in achieving the AIC Objectives.

2.4   Creation, Enhancement and Maintenance of Australian Industrial Capabilities

2.4.1   The Public AIC Plan shall summarise the Contractor's commitments, and any AIC Subcontractors' commitments, to the creation of new Industrial Capabilities, or the enhancement or maintenance of existing Industrial Capabilities within Australia or New Zealand, including:

a.   the sectors in Australian Industry for which assistance is being or will be provided, and the outcomes being sought from providing that assistance;

b.   a brief summary of the specific work being conducted or the initiatives being implemented to assist with the creation, enhancement and/or maintenance of Industrial Capabilities, particularly where these provide benefits to Defence, such as:

(i)   transfer of technology;

(ii)   related AIAs, particularly DRAICs; and

(iii)   training and skills development programs.

2.4.2   This section of the Public AIC Plan shall be consistent with the "Creation, Enhancement and Maintenance of ANZ Industrial Capabilities" required under clause 6.2.6.

2.5   Future Work Opportunities

2.5.1   The Public AIC Plan shall summarise the future work opportunities available to Australian Industry, including:

a.   a summary of the goods and services for which the source of supply is still to be determined and for which there are one or more opportunities for Australian Industry;

b.   the nature of each opportunity, in terms of the scope of each proposed Subcontract for the goods and services identified in response to clause 2.5.1a; and

c.   if applicable, the location(s) where it is required or desirable for the work to be performed (eg, if installation work is required to be performed on a Defence base).

2.5.2   This section of the Public AIC Plan shall be consistent with the "Opportunities for Australian Industry" required under clause 6.2.4.

2.6   Market Engagement

2.6.1   The Public AIC Plan shall describe the process for Australian Entities to apply for the work opportunities described in response to clause 2.5, including:

a.   indicative timeframes for advertising, tendering and Subcontract award;

b.   how the opportunity will be advertised (eg, through the use of supplier advocates, industry forums, professional networks, and the Contractor's webpage); and

c.   contact details for an appropriate representative from the Contractor to enable Australian companies to discuss the opportunities and register their interest.

2.6.2   This section of the Public AIC Plan shall be consistent with the "Contract Market Testing / Subcontract Establishment" required under clause 6.2.5.

ANNEX B TO DID-PM-AIC-AICP

AUSTRALIAN INDUSTRY CAPABILITY SCHEDULE

Table 2: Australian Industry Capability Schedule

Entity Name	ACN/NZCN (if applicable)	CWBS X-refs (Subcontractors only)	Scope of Work to be conducted in Australia or New Zealand and/or by each Australian Entity	Location	SME	Veterans
a.	b.	c.	d.	e.	f.	g.
[…Contractor name…]		[… 'not applicable' for Contractor …]	[… cross-refer to response to clause 6.2.7 …]			
[…AIC Subcontractor A…]		[… 'not applicable' for AIC Subcontractor …]	[… cross-refer to response to clause 6.2.8 …]			
[… Entity C (Subcontractor to AIC Subcontractor A)…]			[… cross-refer to response to clause 6.2.6, if applicable …]			

Notes for Table 2:

a.   *Entity Name: The name of the company or other entity if known. If not known at the time of submitting the AIC Plan to the Commonwealth, insert "To be determined" where the Contractor expects to subcontract that element of the work, but no subcontractor has yet been identified. Also identify the approximate timing(s) / timeframes when this subcontracting activity will be undertaken.*

b.   *ACN/NZCN: If applicable, the Australian Company Number or New Zealand Company Number.*

c.   *CWBS Cross-references: Identify the Level 3 CWBS Element(s) in which the scope of work for the identified entity is captured. This requirement does not apply to the Contractor or AIC Subcontractors when the work effort is described in response to clauses 6.2.7 and 6.2.8.*

d.   *Scope of Work: A brief description (eg, 2-3 bullet points) of the scope of work to be performed in Australia or New Zealand and/or by each Australian Entity, including the approximate timing(s) / timeframes when the work will be undertaken and, if applicable, cross-references to DRAICs and other AIAs. For the Contractor and each AIC Subcontractor, cross-refer to the descriptions of work scope prepared in response to clauses 6.2.7 and 6.2.8 respectively. If a particular Subcontractor, which is not an Australian Entity, is not performing any work in Australia or New Zealand, enter 'Nil' in this cell.*

e.   *Location: The location(s), including postcode(s), where the majority of work is to be performed. For the Contractor and each AIC Subcontractor, leave this column blank (this information is provided in response to clauses 6.2.7 and 6.2.8).*

f.   *SME: Is the organisation a Small-to-Medium Enterprise (yes/no)?*

g.   *Veterans: Has the organisation signed the Veterans Employment Commitment (yes/no)? Refer to veteransemployment.gov.au for details.*

DATA ITEM DESCRIPTION

1.   **DID NUMBER:**   **DID-PM-AIC-ASTDL-V5.3**

2.   **TITLE:**   **ANZ SUBCONTRACTOR TECHNICAL DATA LIST**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The Australia and New Zealand (ANZ) Subcontractor Technical Data List (ASTDL) is an index of Technical Data (TD) provided to ANZ Subcontractors by the Contractor, or other Subcontractors, to:

   a.   enable Subcontractors within Australian Industry to undertake particular activities under the Contract in relation to the Australian Industry Capability (AIC) program;

   b.   establish, enhance or sustain Industrial Capabilities within Australia relating to the Supplies (eg, to enable an Australian Entity to undertake through-life support (including, if applicable, under the Contract (Support)) in Australia and/or New Zealand of particular products delivered under the Contract); and/or

   c.   enable the Contractor to meet its AIC Obligations and to achieve the AIC Objectives.

   The TD identified in the ASTDL may be identified elsewhere in the Contract for delivery to the Commonwealth; however, the ASTDL identifies Intellectual Property (IP) and any other restrictions relating to the use of the TD by the Subcontractor receiving the TD.

3.2   The Contractor uses the ASTDL to:

   a.   advise the Commonwealth of the TD that is to be delivered by the Contractor or other Subcontractors to ANZ Subcontractors, including the related IP rights; and

   b.   provide assurance to the Commonwealth that the AIC Obligations and the AIC Objectives will be, and are being, achieved.

3.3   The Commonwealth uses the ASTDL to:

   a.   gain an understanding of, and to verify, the TD to be provided to ANZ Subcontractors and the IP rights associated with that TD; and

   b.   gain assurance that the AIC Obligations and the AIC Objectives will be achieved.

4.   **INTER-RELATIONSHIPS**

4.1   The ASTDL is subordinate to the following data items, where these data items are required under the Contract:

   a.   AIC Plan;

   b.   Supply Chain Management Plan (SCMP);

   c.   Defence-Required Australian Industrial Capability Plan (DRAICP);

   d.   Integrated Support Plan (ISP); and

   e.   Technical Data Plan (TDP).

4.2   The ASTDL inter-relates with the following data items, where these data item are required under the Contract:

   a.   Support System Technical Data List (SSTDL);

   b.   Data Accession List (DAL);

   c.   all other data items that identify, list, or are TD; and

   d.   Contract Status Report (CSR).

5.   **APPLICABLE DOCUMENTS**

5.1   The following documents form a part of this DID to the extent specified herein:

     Nil.

6.   **PREPARATION INSTRUCTIONS**

6.1   **Generic Format and Content**

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

Note: The data structure of the ASTDL is identical to the Master Technical Data Index (MTDI), to enable the same tool / database to be used. However, restrictions on the use of TD (clauses 6.2.2m and 6.2.2n) are defined differently.

6.1.2   The ASTDL shall be provided in soft copy as a structured data file (eg, one or more databases, spreadsheets or other structured data format) that enables the ASTDL content to be accessed, queried, read, printed, and used to generate soft copy tabulated text reports.

6.1.3   Except where the soft copy data file is compatible with a standard Software application defined elsewhere in the Contract, or otherwise agreed in advance and in writing by the Commonwealth Representative, the ASTDL shall be accompanied by any Software and TD required to enable the functions identified in clause 6.1.2.

6.2   **Specific Content**

6.2.1   The ASTDL shall list all of the TD that will be provided by the Contractor, or other Subcontractors, to ANZ Subcontractors in order for the ANZ Subcontractors to perform the work required under the Contract, the Contract (Support) (if applicable), and/or over the Life-of-Type (LOT) of the Mission System, to achieve one or more of the purposes set out in clause 3.1.

6.2.2   The ASTDL shall include the following information for each item of TD listed:

     a.   the item reference number, document number, drawing number or S1000D Data Management List (DML) control number, as applicable;

     b.   the name or title of the item of TD;

     c.   the version (eg, draft, update, final);

     d.   the revision / DML issue number / amendment status and release / issue date, as applicable;

     e.   a brief description of the item of TD, including its purpose or use;

     f.   delivery details, including:

          (i)   if the item of TD is also to be delivered to the Commonwealth;

          (ii)   the recipient ANZ Subcontractor(s) to which the item of TD will be, or has been, provided;

          (iii)   the required date / timeframe when the TD will be provided to each applicable Subcontractor (which may be identified in relation to Contract milestones); and

          (iv)   if delivered, the date on which the TD was provided to each applicable Subcontractor;

     g.   the unique product identifier of the system / sub-system / Configuration Item (CI) / end-product to which the item of TD relates;

     h.   the name of the system / sub-system / CI / end-product to which the item of TD relates;

     i.   if Defence Required Australian Industrial Capabilities (DRAICs) are applicable to the Contract, the DRAIC to which the item of TD relates;

j.   the source (eg, name of entity / supplier that created or provided it);

k.   any applicable Australian or foreign security classification;

l.   the activities to be performed by the ANZ Subcontractor to which the TD relates;

m.   if rights to the TD are restricted due to IP, patents, or similar, details of or cross-references to the licenses or other arrangements to allow the ANZ Subcontractor to perform the work allocated to it under the Contract; and

n.   if the use of TD is restricted for reasons other those defined for clause 6.2.2m (eg, Export Controls), details of the applicable approvals (eg, Technical Assistance Agreements) required to allow the Subcontractor to perform the work allocated to it under the Contract.

6.2.3   The ASTDL shall enable the TD to be sorted and listed by:

a.   the applicable system, sub-system, Configuration Item (CI), or end-product (including hardware and software CIs or end-products), with the breakdown structure being consistent with the product breakdown structure for the Materiel System;

b.   the source of the TD (eg, the name of the Subcontractor / supplier that created or provided it);

c.   the Subcontractors to which the TD will be / has been provided; and

d.   if DRAICs are applicable to the Contract, the DRAIC to which the TD relates.

DATA ITEM DESCRIPTION

1.   **DID NUMBER: DID-PM-AIC-DRAICP-V5.3**

2.   **TITLE: DEFENCE-REQUIRED AUSTRALIAN INDUSTRIAL CAPABILITY PLAN**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The Defence-Required Australian Industrial Capability (DRAIC) Plan (DRAICP) describes the Contractor's strategy, plans, methodologies and processes for defining, developing, implementing and sustaining new DRAICs or significant enhancements to existing Industrial Capabilities to produce the DRAICs required by the Contract and, where applicable, the Contract (Support). The DRAICs are essential for meeting the AIC Objectives for the Contract. The DRAICP also provides the plans for the individual DRAIC Elements that comprise each DRAIC, such as infrastructure, personnel, equipment, Information and Communications Technology (ICT), Technical Data (TD), and processes and procedures.

Notes:

a.   *The Contract will specify that either the DRAICs (as a complete Industrial Capability) or a subset thereof (ie, particular DRAIC Elements) are subject to Acceptance.*

b.   *The Contract will specify that individual DRAICs are required to progress through a process of assurance, which may or may not include Acceptance Verification and Validation (AV&V). The term 'assurance', when used in this DID, is intended to embrace all such concepts to the extent set out in the Contract.*

c.   *Where multiple DRAICs are being acquired under the Contract, the CDRL may specify that a separate DRAICP is required for each of the DRAICs.*

d.   *Except where explicitly identified otherwise in this DID, all references to 'Subcontractors' includes AIC Subcontractors and any other Subcontractors involved in the development, implementation, operation, and/or sustainment of a DRAIC, including the Australian Entity that may be the recipient of a DRAIC, where this is not the Contractor or an AIC Subcontractor.*

3.2   The Contractor uses the DRAICP to:

a.   describe the Contractor's and, where applicable, Subcontractors' plans for each DRAIC and the associated DRAIC Elements, showing how the DRAIC Elements will be defined, developed or procured (as applicable), delivered, integrated together, and assured, to meet the timeframes set out in the Approved Contract Master Schedule (CMS), to produce either:

(i)   a fully operational and supported DRAIC; or

(ii)   a set of DRAIC Elements that will evolve into a fully operational and supported DRAIC under the Contract (Support),

('**Required DRAIC Outcome**');

b.   ensure that those parties, including Subcontractors, who are undertaking activities in relation to a DRAIC and/or particular DRAIC Elements understand their responsibilities, the processes to be used, and the time-frames involved; and

c.   provide assurance to the Commonwealth that the DRAICs (once integrated) will satisfy their respective requirements and will be fit for the purpose(s) provided for in the Contract, including for sustainment-related DRAICs that they properly integrate with the evolving design, development, implementation and Verification and Validation (V&V) of the Support System.

3.3   The Commonwealth uses the DRAICP to:

a.   understand and evaluate the Contractor's plan for achieving the Required DRAIC Outcomes, including in relation to identifying, defining and producing the required DRAIC Elements;

b.   identify and understand the Commonwealth's involvement in the Contractor's DRAIC-related development program, including monitoring the Contractor's program and engaging at key decision points; and

c.   as an input into the Commonwealth's own planning.

4.   INTER-RELATIONSHIPS

4.1   The DRAICP is subordinate to the Australian Industry Capability Plan (AICP).

4.2   The DRAICP inter-relates with the following data items, where these data items are required under the Contract:

a.   Supply Chain Management Plan (SCMP);

b.   Research and Development Management Plan (R&DMP);

c.   Contract Work Breakdown Structure (CWBS);

d.   Contract Master Schedule (CMS);

e.   Australia and New Zealand (ANZ) Subcontractor Technical Data List (ASTDL);

f.   Contract Status Report (CSR);

g.   for DRAICs that will form part of the Support System:

(i)   Support System Specification (SSSPEC);

(ii)   Support System Description (SSDESC);

(iii) Support System Technical Data List (SSTDL); and

(iv)   all data items associated with the design, development, implementation and V&V of the Support System; and

h.   for DRAICs or DRAIC Elements that will undergo AV&V:

(i)   Acceptance Test Plans (ATPs);

(ii)   Acceptance Test Procedures (ATProcs); and

(iii) Acceptance Test Reports (ATRs).

5.   APPLICABLE DOCUMENTS

5.1   The following document forms a part of this DID to the extent specified herein:

Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The DRAICP shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   When the Contract has specified delivery of another data item that contains aspects of the required information, the DRAICP should summarise these aspects and refer to the other data item.

6.1.3   Where multiple DRAICs are being acquired under the Contract and except where otherwise required by the CDRL, the DRAICP shall be structured into separate sections for each DRAIC.

6.1.4   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.1.5   The DRAICP is expected to progressively evolve and be updated over time, commensurate with the maturity of the designs for each DRAIC. Where information to satisfy a specific requirement in this DID is unavailable at the time of submitting a version of the DRAICP, the DRAICP shall explicitly identify:

   a.   the information that is unavailable; and

   b.   the precondition or timeframe when the information is expected to become available.

6.2   Specific Content

6.2.1   DRAIC Implementation Organisation and Management

6.2.1.1   The DRAICP shall describe, for both the Contractor and any Subcontractors involved in the provision of a DRAIC:

   a.   the organisational arrangements and management structures responsible for managing and performing the Contractor's and AIC Subcontractors' activities in relation to achieving the Required DRAIC Outcomes; and

   b.   the flow of authority and responsibility for performance of the activities in relation to the different DRAIC Elements (eg, infrastructure-related, procurement of equipment, installation of equipment, personnel recruitment and training, ICT system implementation, process and TD development, assurance and, if applicable, certification of individual DRAIC Elements).

6.2.2   DRAIC Operating and Support Concepts, Architecture and Requirements

6.2.2.1   For each DRAIC, the DRAICP shall set out the operating and support concepts in sufficient detail to:

   a.   enable the scope of the DRAIC to be understood, including its purpose, functionality, performance requirements (both steady state and under stressful conditions), system boundaries, external interfaces, and any limitations or constraints on, or growth opportunities with respect to, its scope and/or operations; and

   b.   enable the requirements for, and architecture of, the DRAIC to be properly derived, as required by clauses 6.2.2.2 and 6.2.2.3, in the context of the operating and support concepts.

6.2.2.2   The DRAICP shall set out the architecture of each DRAIC, identifying and describing:

   a.   the nature and scope of the DRAIC Elements that comprise the DRAIC, including identifying:

      (i)   those DRAIC Elements that exist;

      (ii)   the new and/or modified DRAIC Elements that need to be developed; and

      (iii)   for sustainment-related DRAICs, the DRAIC Elements that will be provided under the Contract and, where applicable, those that will be deferred until the Contract (Support);

   b.   the relationships between these DRAIC Elements; and

   c.   any relationships between the DRAIC Elements and external elements outside of the DRAIC boundary.

6.2.2.3   The DRAICP shall identify the requirements that each DRAIC must satisfy, as derived from the requirements of the Contract (and, where applicable, the Contract (Support)) and the concepts and architecture developed under clauses 6.2.2.1 and 6.2.2.2, respectively, particularly the requirements for any new or modified infrastructure elements and/or any new or modified items of equipment, including both functional requirements and non-functional requirements (safety, security, supportability, etc).

6.2.3   DRAIC Implementation Flow Diagram

6.2.3.1   For each DRAIC, the DRAICP shall include an overall flow diagram of the Contractor's and, where applicable, Subcontractors' activities in relation to achieving the Required DRAIC Outcomes. This flow shall be sequentially arranged to include:

     a.   all significant DRAIC and DRAIC Element milestones and efforts, including the flow and staging of the different DRAIC Elements;

     b.   the integration of the various DRAIC Elements to produce working DRAICs;

     c.   the associated assurance (including V&V) and, if applicable, certification activities; and

     d.   any additional information that clarifies the description of the DRAIC implementation program.

6.2.3.2   The flow diagram shall reflect predicted dates for significant milestones, as set out in the Approved CMS.

6.2.4   General Requirements for Realising DRAICs

6.2.4.1   The DRAICP shall provide an overview of the Contractor's program of work for defining, developing, implementing and, where required, achieving Acceptance of each DRAIC, including:

     a.   the Contractor's methodology and plans for identifying, acquiring, installing (if required), testing, obtaining the required certifications and accreditations for, and subsequently supporting each of the individual DRAIC Elements required for a DRAIC;

     b.   the major activities to be undertaken, when, and by whom;

     c.   the DRAIC work to be undertaken by AIC Subcontractors, including how Subcontractor activities and products will be integrated into the overall DRAIC program effort in terms of work activities and end products, which may include, for example:

          (i)   a DRAIC, or part thereof, being established in an Australian Entity by an overseas AIC Subcontractor; or

          (ii)   where a DRAIC is to be established in a Subcontractor's premises, the division of responsibilities between the Contractor and the Subcontractor, including identifying any assistance to be provided by the Contractor to the Subcontractor to ensure the successful implementation and subsequent operation of the DRAIC;

     d.   the personnel (including categories, numbers and associated skills/competencies) required by the Contractor and AIC Subcontractors to manage and conduct the program of work to define, design, develop and implement each DRAIC, including the staff/skills profile for these personnel;

     e.   the interfaces between the DRAIC program of work and the Contractor's activities in relation to defining, designing, developing, implementing, and conducting V&V on the Mission System and/or Support System;

     f.   any assumptions, constraints and/or risks associated with the plans for the development and delivery of the Required DRAIC Outcome for each DRAIC, including, for any identified risks, the proposed risk mitigations; and

     g.   any expected activities to be performed by the Commonwealth (eg, collaborating during the design, development and implementation of a DRAIC to ensure that the DRAIC will meet the Commonwealth's needs and requirements, provision of Government Furnished Material (GFM) and/or Government Furnished Facilities (GFF), and witnessing key events in the progression of a DRAIC).

6.2.4.2   The DRAICP shall include the Contractor's development and implementation schedule for each DRAIC, describing how the schedule supports the achievement of the milestones identified in the Approved CMS.

6.2.5   DRAIC Infrastructure

6.2.5.1   The DRAICP shall identify and justify the likely infrastructure required for each DRAIC, including in relation to facilities, fixed plant, utilities, and any other key requirements (eg, physical security and cyber security).

6.2.5.2   The DRAICP shall describe the Contractor's methodology and plans for defining, acquiring, fitting out, obtaining the required certifications and accreditations for, and subsequently supporting the DRAIC infrastructure.

6.2.5.3   The DRAICP shall identify any GFF or other facilities to be provided by the Commonwealth required for the DRAIC, identifying:

  a.   the relationships between the timeframes for the provision of the GFF or other facilities and the Contractor's and/or Subcontractors' activities to produce the Required DRAIC Outcomes; and

  b.   the functional and performance requirements that the GFF or other facilities must satisfy for the purposes of the DRAIC (including justification), but excluding any construction-related requirements, such as compliance with building regulations and standards.

6.2.6   DRAIC Personnel

6.2.6.1   The DRAICP shall identify and justify the envisaged workforce required to operate and support the DRAIC, including:

  a.   the estimated personnel numbers, including skills and experience; and

  b.   the proposed organisational structure.

6.2.6.2   The DRAICP shall identify the likely sources of the required personnel and describe the Contractor's plans for identifying, recruiting, transferring, and/or training (as applicable) the personnel required to operate and support the DRAIC. For clarity, this requirement excludes the personnel associated with implementing the DRAIC, except where these personnel will transition across to operate or support the DRAIC.

6.2.6.3   The DRAICP shall identify any Commonwealth personnel, including Members Required in Uniform (MRU) under any linked Contract (Support), which are required under the Contract or the Contract (Support) to participate in, or form part of, the DRAIC.

6.2.7   DRAIC Equipment

6.2.7.1   The DRAICP shall identify any items of DRAIC equipment that:

  a.   are critical for achieving the requirements for the DRAIC, particularly the milestone dates identified in the Approved CMS;

  b.   are likely to have an impact on the design of the facilities or infrastructure:

  (i)   due to (for example) size, space / access requirements, vibration, Maintenance, heating / cooling, Electromagnetic Environmental Effects (E3), power and other utilities, and so on; and

  (ii)   if there is likely to be an impact on the design, a brief description of the impact;

  c.   will be provided as Government Furnished Equipment (GFE) or, if not identified in Attachment E, the Contractor requests be provided as GFE, including rationale;

  d.   involve special handling, transportation or storage requirements, and provide an overview of these requirements; and/or

  e.   involve specialised operating and/or support requirements, and provide an overview of these requirements.

6.2.7.2   The DRAICP shall provide an overview of any installation requirements for DRAIC equipment.

6.2.7.3   For any item of DRAIC equipment that will be owned by the Commonwealth, the DRAICP shall identify how and when the necessary information (eg, Codification Data) will be provided to the Commonwealth to enable these items to be brought to account prior to usage.

6.2.8   DRAIC Management Systems and Information Systems

6.2.8.1   The DRAICP shall identify and justify the envisaged management systems and information systems required for a fully operational and supported DRAIC, including:

a.   any site-specific Quality Management System (QMS) Certified to AS/NZS ISO 9001:2015 "Quality Management Systems – Requirements, as may be required under the Quality Management clause of the SOW and, where applicable, the SOW for the Contract (Support);

b.   a Work Health and Safety Management System (WHSMS), as may be required under the Health, Safety and Environment (HSE) clause of the SOW and, where applicable, the SOW for the Contract (Support);

c.   an Environmental Management System (ENVMS), as may be required under the HSE clause of the SOW and, where applicable, the SOW for the Contract (Support);

d.   enterprise resource planning system(s), production managements system(s) and configuration management systems; and

e.   other required information systems (eg, for financial management and personnel management) or access to Defence information systems.

6.2.9   DRAIC Processes, Procedures and TD

6.2.9.1   The DRAICP shall describe the Contractor's methodology for identifying, defining and documenting the processes required to operate and support the DRAIC.

6.2.9.2   Where new or modified procedures are required, the DRAICP shall identify the nature and scope of these procedures and detail how these procedural requirements will be achieved in the timeframes required.

6.2.9.3   The DRAICP shall identify the TD required to operate and support the DRAIC, cross-referring to the applicable list in the MTDI, as appropriate.

6.2.9.4   The DRAICP shall identify any TD to be provided as GFM or, if not identified in Attachment E, the Contractor requests be provided as GFM, including rationale for any additional items, including where the Contractor may be seeking the TD as Government Furnished Data (GFD).

6.2.10   DRAIC Assurance

6.2.10.1   The DRAICP shall describe the proposed process of assurance to be undertaken by the Contractor to confirm that each DRAIC (or set of DRAIC Elements for any sustainment-related DRAICs that will not be fully implemented under the Contract) meets requirements, is safe and is fit for purpose, including:

a.   the nature and types of assurance activities to be undertaken, including identifying:

(i)   any assurance and/or V&V activities defined by the Contract;

(ii)   scenarios of use based on individual activities or sequences of activities associated with the various states and/or modes of operation of the DRAIC to confirm that the DRAIC is safe and suitable to perform its intended roles;

(iii) scenarios that confirm that the DRAIC (or set of DRAIC Elements) is both supported and supportable; and

(iv)   where AV&V is required for a DRAIC (or for particular DRAIC Elements), identification of the documentation to be produced to support each phase of AV&V;

b.   the envisaged flow of assurance activities, through assurance for the different types of DRAIC Elements, leading to, where applicable, assurance activities for the entire DRAIC;

c.   the structuring of the flow of assurance activities into phases;

d.   all significant milestones and efforts associated with each assurance phase;

e.   the contractor or group responsible for each assurance phase;

f.   the resources and technical and logistic support required for each assurance phase;

g.   the role of the Commonwealth during the assurance activities, including those roles required by the Contract and any roles envisaged by the Contractor, particularly for those DRAICs or DRAIC Elements that are subject to Acceptance; and

h.   any additional information that clarifies the description of the DRAIC assurance program, including any requirements associated with the DRAIC Readiness Review if such an MSR is required under the Contract.

6.2.10.2   If an SRP is not required under the Contract, the DRAICP shall define entry criteria, exit criteria and checklist items for the DRAIC Readiness Review, incorporating the requirements from MSR-CHECKLIST-DRAICRR if this MSR Checklist is required under the Contract.

6.2.11   DRAIC Sustainment

6.2.11.1   This clause 6.2.11 only applies to those DRAICs that will be fully implemented and Accepted under the Contract.

6.2.11.2   The DRAICP shall describe the methodology and resources that the Contractor (and/or applicable AIC Subcontractor) will use to sustain each DRAIC to ensure that it will be operational when required, including, where applicable, sustaining the DRAIC during a period of low production activity or pending transition to a Contract (Support).

6.2.11.3   In describing the methodology and resources to sustain each DRAIC, the DRAICP shall summarise, as applicable:

a.   the infrastructure, facilities, ICT and other significant equipment required for the DRAIC, and the maintenance, preservation, storage and other processes required to sustain those items;

b.   the plan of activities required to ensure that equipment, Technical Data and Software is updated, when required, to align with the configuration of the Materiel System; and

c.   the measures taken to ensure the continuity of skilled personnel to operate and support the DRAIC.

DATA ITEM DESCRIPTION

1.   **DID NUMBER:**   **DID-PM-AIC-MPBC-V5.3**

2.   **TITLE:**   **MATERIEL PROCUREMENT BUSINESS CASE**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The Materiel Procurement Business Case (MPBC) provides the arguments to justify a decision in relation to a procurement of materiel and/or associated services when the Contractor has conducted a procurement activity for the materiel and/or associated services and either:

a.   is proposing not to utilise an Australian Entity; or

b.   has identified that an Australian supplier could be a candidate for consideration as an Australian Industry Opportunity (AIO).

3.2   The Contractor uses the MPBC to:

a.   describe the procurement activity that has resulted in the requirement for an MPBC, including the outcomes obtained and the alternatives being assessed;

b.   demonstrate to the Commonwealth that the Contractor is appropriately addressing the Australian Industry Capability (AIC) Objectives and either:

(i)   cannot identify a way to further these objectives without placing other objectives at risk; or

(ii)   has identified an opportunity to further these objectives, but cannot do so within the cost, schedule or capability requirements of the Contract;

c.   assess the identified alternatives against the required criteria to highlight the respective trade-offs associated with each alternative; and

d.   detail the analysis, rationale and recommendations associated with this assessment.

3.3   The Commonwealth uses the MPBC to:

a.   understand and assess the Contractor's analysis of the procurement activity, including the Contractor's proposed way forward and the associated justification;

b.   provide input for Commonwealth decision-making in relation to the MPBC; and

c.   provide a repository of procurement information for future reference.

4.   **INTER-RELATIONSHIPS**

4.1   The MPBC is subordinate to the following data items, where these data items are required under the Contract:

a.   Australian Industry Capability Plan (AICP); and

b.   Supply Chain Management Plan (SCMP).

4.2   The MPBC inter-relates with the following data items, where these data items are required under the Contract:

a.   Materiel Procurement Strategy (MPS);

b.   System Specification (SS) for each different type of Mission System;

c.   Support System Specification (SSSPEC);

d.   Contract Work Breakdown Structure (CWBS);

e.   Contract Master Schedule (CMS); and

f.   Contract Status Report (CSR).

5. **APPLICABLE DOCUMENTS**

5.1 The following document forms a part of this DID to the extent specified herein:

Nil.

6. **PREPARATION INSTRUCTIONS**

6.1 **Generic Format and Content**

6.1.1 The MPBC shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.2 **Specific Content**

6.2.1 **General Requirements**

6.2.1.1 The MPBC shall describe the procurement activity that has resulted in the requirement for an MPBC, including the outcomes obtained and the alternatives being assessed.

6.2.1.2 The MPBC shall define the set of evaluation criteria by which the procurement alternatives have been compared and assessed, including any weighting of the criteria. Except where otherwise agreed, in writing, by the Commonwealth, these criteria shall include Capability, Mission System requirements, Support System requirements, cost (both acquisition costs and Life Cycle Cost), schedule, and AIC (in relation to both Australian Contract Expenditure (ACE) and Industrial Capabilities).

6.2.2 **Information Required – Proposal Not to Utilise an Australian Supplier**

6.2.2.1 When the Contractor has conducted a procurement activity for materiel and/or associated services (for the scope of procurements identified under the Supply Chain Management clause of the SOW) and is proposing not to utilise an Australian supplier, the MPBC shall provide the following information to justify this proposal:

a. an assessment of each of the suppliers against the evaluation criteria, including the justification for the assessment;

b. the Contractor's recommendation for the way forward, including justification;

c. an explanation as to why an Australian supplier could not be used, including:

(i) a risk assessment associated with the Australian supplier(s); and

(ii) the rationale as to why none of the Australian supplier(s) could be treated as an AIO; and

d. except where otherwise agreed in writing by the Commonwealth, an assessment, including justification, of the necessary changes to each of the following if an Australian supplier were to be adopted:

(i) the Capability needs, as documented in the Operational Concept Document (OCD);

(ii) the Mission System requirements, as documented in the Mission System Functional Baseline (FBL);

(iii) the Support System requirements, as documented in the Support System FBL;

(iv) the Statement Of Work (SOW);

(v) the Contract Price; and

(vi) the Delivery Schedule.

6.2.3 **Information Required – Proposal to Include an Australian Supplier as an AIO**

6.2.3.1 When the Contractor has conducted a procurement activity for materiel and is proposing to include an Australian supplier as an AIO, the MPBC shall provide the following information to justify this proposal:

a.   an assessment of each of the suppliers against the evaluation criteria, including the justification for the assessment;

b.   the Contractor's recommendation for the way forward, including justification;

c.   an explanation as to why the Australian supplier is being proposed as an AIO, including:

   (i)   the nature and scope of the AIO;

   (ii)   where the goods and/or services from the Australian supplier require further development to be suitable for incorporation into the Supplies, an overview of the required work effort by both the supplier and the Contractor to enhance the goods and/or services so that they would be suitable, including expected timeframes, likely costs, and the assessed risks; and

   (iii)   the implications of the potential AIO on the Contractor's ability to provide the Supplies in accordance with the Contract, including the implications for Capability, cost (including Life Cycle Cost) and schedule; and

d.   identification, with justification, of the necessary changes to the Contract associated with adopting the supplier as an AIO, including (as applicable):

   (i)   the Capability needs, as documented in the OCD;

   (ii)   the Mission System requirements, as documented in the Mission System FBL;

   (iii)   the Support System requirements, as documented in the Support System FBL;

   (iv)   the SOW;

   (v)   the Contract Price; and

   (vi)   the Delivery Schedule.

DATA ITEM DESCRIPTION

1.   **DID NUMBER:**   **DID-PM-AIC-MPS-V5.3**

2.   **TITLE:**   **MATERIEL PROCUREMENT STRATEGY**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The Materiel Procurement Strategy (MPS) describes the Contractor's and/or Australian Industry Capability (AIC) Subcontractor's plan for undertaking the procurement of applicable materiel and/or associated services for the Materiel System (as identified under the Supply Chain Management clause of the SOW), in order to satisfy the AIC Objectives while meeting the other requirements of the Contract.

3.2   Generally, an individual MPS is required for each applicable procurement requirement for a materiel item or service, except where the Contractor or AIC Subcontractor is proposing to amalgamate separate requirements into a single procurement for reasons of efficiency, the nature of the marketplace, the similarities of the individual requirements, or other applicable reasons. An MPS is not required for any materiel or associated services:

    a.   already included within the scope of a Subcontract with an AIC Subcontractor identified in Attachment H; or

    b.   for which the Contractor or an AIC Subcontractor has already identified, in writing, that it will procure from Australian Industry (eg, for Commercial-Off-The-Shelf (COTS) items).

3.3   The Contractor and/or the AIC Subcontractor uses the MPS to:

    a.   describe the plan for conducting the procurement of applicable materiel and/or associated services for the Mission System and/or Support System so that the procurement will satisfy:

        (i)   the AIC Objectives, particularly in relation to promoting opportunities for Australian industry to participate in the Contract work; and

        (ii)   the other requirements of the Contract, particularly in relation to capability and schedule;

    b.   ensure that those parties (including the Commonwealth), who are undertaking activities in relation to a procurement, understand their responsibilities, the processes to be used, and the time-frames involved; and

    c.   provide assurance to the Commonwealth that the procurement appropriately balances the differing requirements of the Contract so that opportunities for Australian Industry are being actively pursued to achieve the AIC Obligations.

3.4   The Commonwealth uses the MPS to:

    a.   understand and evaluate the Contractor's and/or AIC Subcontractor's plan for undertaking a procurement of materiel and/or associated services, including monitoring the implementation of the plan;

    b.   enable the Commonwealth to provide input into the procurement, particularly to advise the Contractor or AIC Subcontractor of matters relating to the AIC Objectives that may not be known by the Contractor or AIC Subcontractor (such as procurement-specific Sovereignty requirements, Defence-specific security and/or export control issues, opportunities for bundling with other Defence projects, potential Australian suppliers that may be suitable, and insights into the Australian marketplace from its broader perspective), engage at key decision points, and provide other assistance where required; and

    c.   as an input into the Commonwealth's own planning.

4.   INTER-RELATIONSHIPS

4.1   The MPS is subordinate to the following data items, where these data items are required under the Contract:

      a.   Australian Industry Capability Plan (AICP); and

      b.   Supply Chain Management Plan (SCMP).

4.2   The MPS inter-relates with the following data items, where these data items are required under the Contract:

      a.   Defence-Required Australia Industrial Capability Plan (DRAICP);

      b.   Materiel Procurement Business Case (MPBC);

      c.   Software List (SWLIST);

      d.   Support and Test Equipment Provisioning List (S&TEPL);

      e.   Training Equipment List (TEL);

      f.   Support System Technical Data List (SSTDL);

      g.   Australia and New Zealand (ANZ) Subcontractor Technical Data List (ASTDL);

      h.   Contract Work Breakdown Structure (CWBS);

      i.   Contract Master Schedule (CMS); and

      j.   Contract Status Report (CSR).

5.   APPLICABLE DOCUMENTS

5.1   The following document forms a part of this DID to the extent specified herein:

      Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The MPS shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   The MPS shall describe the Contractor's and/or AIC Subcontractor's plan for conducting a procurement for applicable materiel and/or associated services, including:

      a.   identification of the procurement objective and required key outcomes (eg, selection of a supplier and/or product for the project, qualification of a suite of suppliers, confirming the suitability of particular products, conducting a competitive design down-selection, and/or establishing a standing offer for particular COTS items), including whether or not there are any opportunities for cross-program bundling (eg, across related platforms and/or systems);

      b.   a description of the scope of work, including the materiel and/or associated services to be procured, key requirements to be met, any identified constraints (eg, security or export control), budgeted cost and estimated schedule;

      c.   an estimate of the whole-of-life costs for the materiel and/or associated services, including the supporting information that explains how this estimate was derived;

      d.   identification of the pricing model for the Subcontract (eg, fixed price, time and materials, or Target Cost Incentive (TCI)), including any the likely parameters associated with the model where appropriate (eg, for a TCI model, this would include

the ceiling price, floor price, share ratios, and other selectable parameters) and the basis for choosing that pricing model;

e.   a description of the approach for addressing the Commonwealth's Sovereignty requirements (if any) notified in accordance with the Supply Chain Management clause of the SOW, including any proposed essential requirements that the suppliers may be required to meet to ensure those requirements are addressed;

f.   if the procurement is proposed to be conducted in stages (eg, design stage, prototype stage and production stage), an explanation as to how any sole-source considerations for future stages will be addressed and managed;

g.   an assessment of the competitiveness and maturity of Australian Industry to meet the procurement requirements;

h.   identification of the proposed procurement method (ie, sole source, limited request (ie, a request that will be limited to a number of suppliers), or open request) and a justification for the proposed method;

i.   if the procurement is proposed to be conducted as a sole source or limited request procurement:

(i)   identification of the supplier(s) that will be invited to participate in the procurement activity; and

(ii)   details of any known potential Australian suppliers that could have the capability to meet the procurement requirements (within the required lead-time) but have not been shortlisted for participation in the activity, including the rationale for their exclusion;

j.   a description of the key steps and risks associated with the procurement activity; and

k.   identification of the proposed evaluation criteria and any weightings of those criteria, mapped to the procurement objective and required key outcomes, including justification for the selection of the criteria and any associated weightings.

DATA ITEM DESCRIPTION

1.   **DID NUMBER: DID-PM-AIC-R&DMP-V5.3**

2.   **TITLE: RESEARCH AND DEVELOPMENT MANAGEMENT PLAN**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The Research and Development (R&D) Management Plan (R&DMP) describes the Contractor's plans for undertaking R&D under the Contract to achieve the requirements and objectives for the R&D program, as set out in the SOW. The R&DMP also describes the collaborative arrangements to be implemented with the Commonwealth (including the project team, Defence Science and Technology Group (DSTG), Commonwealth Scientific and Industrial Research Organisation (CSIRO) and other Commonwealth agencies), state governments, academia, and Approved Subcontractors ('**R&D Stakeholders**') to achieve these objectives.

3.2   The Contractor uses the R&DMP to:

    a.   describe the arrangements for managing the R&D program and set out the plan for each R&D opportunity, including any collaborative arrangements with R&D Stakeholders required to address the R&D opportunity;

    b.   provide direction to the Contractor's management team and Approved Subcontractors' management teams, responsible for managing the R&D program and/or conducting each R&D opportunity;

    c.   ensure that those parties (including the R&D Stakeholders) who are undertaking R&D activities understand their responsibilities, the processes to be used, and the time-frames involved; and

    d.   define the Contractor's expectations of the Commonwealth in the R&D program, including in relation to coordinating with other R&D Stakeholders.

3.3   The Commonwealth uses the R&DMP to:

    a.   understand the Contractor's approach to meeting the R&D requirements of the Contract, including the relationships between the various R&D Stakeholders involved in the R&D program;

    b.   gain assurance that the Contractor's R&D activities are likely to produce tangible outcomes that will achieve the objectives of the R&D program, including understanding how and when these outcomes might be incorporated into the designs for the Mission System(s) and/or Support System;

    c.   identify and understand the Commonwealth's involvement in the Contractor's R&D program, both as one of the R&D Stakeholders and as a potential source of funding for an R&D opportunity, including monitoring the Contractor's program and engaging at key decision points; and

    d.   as an input into the Commonwealth's own planning.

4.   **INTER-RELATIONSHIPS**

4.1   The R&DMP is subordinate to the Australian Industry Capability (AIC) Plan.

4.2   The R&DMP inter-relates with the following data items, where these data items are required under the Contract:

    a.   Defence-Required Australian Industrial Capability Plan (DRAICP);

    b.   Supply Chain Management Plan (SCMP);

    c.   Growth Plan (GP);

    d.   Australia and New Zealand (ANZ) Subcontractor Technical Data List (ASTDL);

    e.   Contract Work Breakdown Structure (CWBS);

f.   Contract Master Schedule (CMS); and

g.   Contract Status Report (CSR).

5.   APPLICABLE DOCUMENTS

5.1   The following document forms a part of this DID to the extent specified herein:

Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The R&DMP shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   When the Contract has specified delivery of another data item that contains aspects of the required information, the R&DMP should summarise these aspects and refer to the other data item.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   General

6.2.1.1   The R&DMP shall describe the objectives, scope, constraints, and assumptions associated with the Contractor's R&D program.

6.2.1.2   The R&DMP shall describe the Contractor's strategy for involving Australian Industry in the Contractor's R&D program and for collaborating with the other R&D Stakeholders to achieve the R&D objectives for the Contract.

6.2.2   R&D Management

6.2.2.1   The R&DMP shall describe the arrangements for managing and undertaking the R&D program for the Contract, including:

a.   the identification of the manager with overall responsibility for the R&D program;

b.   the methodology, systems, processes and tools to be used for undertaking the R&D program, including for:

(i)   identifying and progressing new R&D opportunities;

(ii)   engaging with each of the different categories of R&D Stakeholder, including how Approved Subcontractors will be incorporated into the R&D program; and

(iii)   managing the implementation of Approved R&D opportunities;

c.   the conduct of any specific R&D activities required by the Contract (excluding the conduct of Approved R&D opportunities, each of which is addressed by a separate implementation plan under clause 6.2.5), including engaging with the R&D Stakeholders;

d.   the mechanisms to be used to enable the Contractor to monitor the implementation plan for each Approved R&D opportunity and how deviations from the plan will be recognised and acted upon; and

e.   the mechanisms to be used to report implementation progress for an Approved R&D opportunity to the R&D Stakeholders (taking into account the requirements of clause 6.2.6), including the Commonwealth.

6.2.3   R&D Opportunity Identification

6.2.3.1   The R&DMP shall describe the methodology to be used by the Contractor and Approved Subcontractors to assist with the identification of potential R&D opportunities, including:

a.   linkages to specific activities for the design of the Mission System(s) and/or Support System that could identify these opportunities (eg, the growth, evolution and

obsolescence program and the Logistic Support Analysis activities relating to Technological Opportunities);

b.   targeted collaborative activities with particular R&D Stakeholders (eg, collaborating with particular Approved Subcontractors, DSTG or academia); and

c.   whether or not the identification of R&D opportunities with Approved Subcontractors will be incentivised and, if so, in which areas of the Contract these incentives are proposed (eg, in relation to particular systems or subsystems within the Mission System(s)).

6.2.4   Overview of Approved R&D Opportunities

Note: The initial set of R&D opportunities would be those opportunities that were offered by the Contractor as part of its tender response and that have subsequently been incorporated into the scope of the Contract as an outcome of negotiations.

6.2.4.1   The R&DMP shall identify each Approved R&D opportunity.

6.2.4.2   The R&DMP shall, for each Approved R&D opportunity, provide an overview of:

a.   the objectives of the R&D opportunity in the context of the enhancing the Mission System(s) and/or the Support System;

b.   its scope, main characteristics, cost, whether or not there are any security or export control implications, and the expected outcomes to be achieved, including whether the opportunity is active or closed;

c.   the envisaged timeframe for realisation of the expected outcomes, including identifying the expected integration of these outcomes into the Contractor's program for the design, development and delivery of the Mission System(s) and Support System;

d.   whether the opportunity could offer benefits to other Defence programs, other government programs and/or provide potential opportunities for Australian Industry (including the Contractor) in relation to Industrial Capabilities, exports, or the ongoing sustainability of particular products or services;

e.   the specific R&D Stakeholders involved; and

f.   the Contractor's expectations of the Commonwealth in delivering the envisaged benefits for the Approved R&D opportunity.

6.2.5   R&D Opportunity Implementation Planning

6.2.5.1   The R&DMP shall provide a separate implementation plan for each Approved R&D opportunity ('**R&D Implementation Plan**' or '**R&DIP**').

Note: The CDRL may specify a delivery schedule for this element of the R&DMP that is different from the remainder of the R&DMP.

6.2.5.2   The R&DIP shall, for an Approved R&D opportunity:

a.   describe the goals for the Approved R&D opportunity, including identifying:

(i)   how satisfaction of the goals will be assessed, including the criteria for determining whether or not the opportunity should be progressed through to production and fielding;

(ii)   success or failure criteria linked to key decision points associated with either the developmental programs for the Mission System(s) and/or Support System or the R&D opportunity itself, such as potential requirements for additional funding, transitioning to production, or off-ramps;

b.   identify the person responsible for implementation;

c.   describe any unique management requirements and reporting requirements (taking into account the requirements of clause 6.2.6) associated with the implementation plan, particularly in relation to:

(i)   any Approved R&D opportunity that is being undertaken by, or will involve, an Approved Subcontractor; and

       (ii)   identifying any key decision points where Commonwealth input will be required;

d.   describe the specific tasks to be performed to achieve the goals for the Approved R&D opportunity, including the tasks to be undertaken by the applicable R&D Stakeholders;

e.   describe the resources required, including personnel, tools, facilities and other items necessary for implementation;

f.   describe any technology transfer (eg, Technical Data, Intellectual Property (IP), knowhow and know-why) that will be provided to Australian Industry under the Contract and identify any resultant benefits;

g.   provide a time-phased cost estimate for the R&D opportunity, including, if applicable, details of any Government grants (at any tier of Government) or funding to be employed in support of the R&D opportunity;

h.   identify any critical assumptions (eg, sponsorship, workload, resource availability, and Commonwealth resource requirements) associated with achieving the goals for the Approved R&D opportunity, and describe how each affects the associated implementation plan for achieving the goals;

i.   identify any constraints associated with the Approved R&D opportunity, such as in relation to security, export controls and Intellectual Property, including describing how these constraints will be managed;

j.   identify the management arrangements for the anticipated R&D outcomes and output products including IP ownership and sublicensing, data sharing agreements, security classifications and constraints, and export controls;

k.   identify and discuss any risks, including those associated with the identified assumptions and constraints, and describe the strategies to mitigate the identified risks;

l.   provide a stand-alone schedule for the activities associated with implementing the Approved R&D opportunity, with key accomplishments and outputs to be identified as milestones and tracked against original estimates; and

m.   describe any future activities that will be required to fully implement the Approved R&D opportunity if it is successful, such as transitioning to full-scale development, production and fielding.

6.2.6 R&D Reporting

6.2.6.1   The R&DMP shall identify and describe the reporting that will be undertaken in relation to the R&D program, including:

a.   the regular reports to be provided to the Commonwealth through the CSR;

b.   the reports to be provided to the Commonwealth outside the normal CSR cycle when events happen in relation to an Approved R&D opportunity that either:

       (i)   involve the presentation of significant findings, outcomes and/or setbacks; or

       (ii)   require Commonwealth inputs, collaboration, and/or decisions; and

c.   for the reports to be provided in accordance with paragraph b above:

       (i)   identification of the likely events that would trigger the need for the reports;

       (ii)   identification of the likely topics to be addressed; and

       (iii)   a description of the types of information that will be provided, which shall include (where applicable) the implications for integrating of the R&D outcomes into the design, development and delivery activities for the Mission System(s) and Support System.

DATA ITEM DESCRIPTION

1.   **DID NUMBER: DID-PM-AIC-SCMP-V5.3**

2.   **TITLE: SUPPLY CHAIN MANAGEMENT PLAN**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The Supply Chain Management Plan (SCMP) describes the Contractor's strategy, plans, methodologies and processes for:

a.   developing, establishing and managing the supply chain required for the acquisition phase, including for the Support System solution to be transitioned to sustainment, particularly the ANZ elements of the supply chain, to ensure that the Australian Industry Capability (AIC) Objectives and AIC Obligations are achieved while satisfying the other requirements of the Contract;

b.   conducting procurement activities and managing Subcontractors in support of, as applicable, the design, development, implementation, and Verification and Validation (V&V) of the Mission System and Support System;

c.   collaborating with AIC Subcontractors to ensure that the AIC Objectives are being pursued by the AIC Subcontractors; and

d.   monitoring and reporting on those Industrial Capabilities, which have been established in Australian Industry and which are necessary for, or are expected to become necessary for, achieving the Sovereignty requirements for the Materiel System.

3.2   The Contractor uses the SCMP to:

a.   provide direction to the Contractor's and AIC Subcontractors' management teams responsible for supply chain planning activities, procurement decisions, assurance of supply, and the establishment and management of Subcontracts;

b.   define, manage and monitor the procurement and associated subcontracting elements of the Contract, including providing the equipment procurement plan for the Contract;

c.   ensure that those parties (including AIC Subcontractors) who are undertaking supply chain and related activities understand their responsibilities, the processes to be used, and the time-frames involved;

d.   define the process for reporting the Contractor's assessment of the health of Industrial Capabilities established by either the Contractor or AIC Subcontractors (as applicable), and the processes to be used when the established Industrial Capabilities are identified as being at risk of failure;

e.   define the Contractor's expectations of the Commonwealth in the Contractor's supply chain and related activities, particularly to identify any Sovereignty requirements associated with procurements for operationally-significant systems or equipment for the Mission System (where required by the SOW); and

f.   provide assurance to the Commonwealth that:

(i)   the Contractor's supply chain and related activities will result in tangible and sustainable Industrial Capabilities that will provide benefits to both Defence and the broader Australian economy; and

(ii)   the Industrial Capabilities established and evolved in Australian Entities will be ready and able to provide the required Sovereignty-related sustainment services during the sustainment phase.

3.3   The Commonwealth uses the SCMP to:

      a.   understand the Contractor's approach to meeting the supply chain and related requirements of the Contract, including the relationships between these activities and achieving the AIC Objectives;

      b.   gain assurance that the Contractor's supply chain and related activities will enable the achievement of:

          (i)   the AIC Objectives and the AIC Obligations; and

          (ii)   the Contractor's program and schedule for, as applicable, the design, development, build, integration, V&V and delivery of the Mission System and the Support System elements;

      c.   identify and understand the Commonwealth's involvement in the Contractor's supply chain and related activities, including the monitoring of the Contractor's program and engagement at key decision points; and

      d.   as an input into the Commonwealth's own planning.

4.   INTER-RELATIONSHIPS

4.1   The SCMP is subordinate to the AIC Plan.

4.2   The SCMP inter-relates with the following data items, where these data items are required under the Contract:

      a.   Materiel Procurement Strategy (MPS);

      b.   Materiel Procurement Business Case (MPBC);

      c.   Defence-Required Australian Industrial Capability Plan (DRAICP);

      d.   Cyber Supply Chain Risk Plan (CSCRP);

      e.   Support System Specification (SSSPEC);

      f.   Support System Description (SSDESC);

      g.   Mission System Technical Documentation Tree (MSTDT);

      h.   Support System Technical Data List (SSTDL);

      i.   Australia and New Zealand (ANZ) Subcontractor Technical Data List (ASTDL);

      j.   Contractor Transition Plan (CTXP);

      k.   Contract Work Breakdown Structure (CWBS);

      l.   Contract Master Schedule (CMS); and

      m.   Contract Status Report (CSR).

5.   APPLICABLE DOCUMENTS

5.1   The following document forms a part of this DID to the extent specified herein:

      Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The SCMP shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   When the Contract has specified delivery of another data item that contains aspects of the required information, the SCMP should summarise these aspects and refer to the other data item.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   **Specific Content**

6.2.1   **Supply Chain Management Strategy**

6.2.1.1   The SCMP shall describe the Contractor's strategy for engaging with the marketplace to establish and maintain the required supply chains to deliver the Supplies under the Contract and, where the suppliers are expected to form part of the Support System solution, to transition to sustainment when required. In setting out this strategy, the SCMP shall also:

     a.   address the strategy-level considerations in relation to identifying, selecting, qualifying and managing Subcontractors, monitoring the ensuing supply chains, and ensuring supply chain security, including addressing any supply chain and/or procurement requirements set out in the Contract;

     b.   describe the objectives, scope, constraints, and assumptions associated with the Contractor's supply chain and related activities;

     c.   describe the strategy associated with collaborating with the Commonwealth:

         (i)   to satisfy any supply chain and/or procurement requirements set out in the Contract, including to identify any Sovereignty requirements associated with procurements for operationally-significant systems or equipment for the Mission System;

         (ii)   where goods and/or services from an Australian Entity have been identified that require further development to be suitable for incorporation into the Supplies; and

         (iii)   in those circumstances where the Commonwealth expresses an interest in being involved in a particular capability trade-off involving Subcontracted supplies;

     d.   describe the global risks associated with these activities (including risks associated with achieving the AIC Objectives or with the development, implementation and/or sustainment of Industrial Capabilities) and the associated risk-mitigation strategies (where a global risk is one for which the risk-mitigation strategy is a key driver of, or is addressed through, the activities, resources and/or timeframes set out in the SCMP); and

     e.   describe the strategy for ensuring that AIC Subcontractors, particularly overseas AIC Subcontractors, will engage with the ANZ marketplace in a manner that promotes achievement of the AIC Objectives and realises tangible and sustainable Industrial Capabilities that will provide benefits to both Defence and the broader Australian economy.

6.2.2   **Supply Chain Management Organisation**

6.2.2.1   The SCMP shall describe the organisational arrangements for managing and undertaking the supply chain and related activities for the Contract, including:

     a.   the Contractor's and AIC Subcontractors' organisations and management structures, showing how these arrangements integrate into the higher-level management structures and organisations for the Contract;

     b.   the interrelationships and lines of authority between all parties involved in the Contractor's and AIC Subcontractors' supply chain and related activities, including the interfaces with the teams undertaking, as applicable, the definition, design, build, integration and V&V of the Mission System and the Support System; and

     c.   the responsibilities of all parties involved in the Contractor's and AIC Subcontractors' supply chain and related activities, including the identification of the individual who will have managerial responsibility for meeting the supply chain and related requirements of the Contract.

6.2.3   **Supply Chain Analysis**

6.2.3.1   The SCMP shall identify those aspects of the supply chain for the Contract for which there are <u>no</u> further opportunities to engage with the marketplace to promote the AIC Objectives.

6.2.3.2   For those aspects of the supply chain for the Contract for which there are further opportunities to engage with the marketplace to promote the AIC Objectives, the SCMP shall:

   a.   identify the relevant aspects of the supply chain in sufficient detail so that it is clear as to the scope of each opportunity, including any constraints, assumptions and/or risks;

   b.   describe the activities that either have been or will be performed to understand the marketplace in relation to the opportunity, particularly the Australian Entities that may be able to offer conforming or near-conforming goods and/or services;

   c.   describe the activities and analyses that will be performed to:

      (i)   understand the capabilities of Australian Industry;

      (ii)   identify any capability gaps with those Australian Entities that may be able to offer conforming or near-conforming goods and/or services;

      (iii)   assess the risks associated with contracting with the Australian Entities, including in relation to the identified capability gaps; and

      (iv)   determine that an Australian Entity is or is not suitable for providing goods and/or services under the Contract, including the criteria to be used for making this assessment;

   d.   describe the criteria for determining the type of contract, particularly in relation to any proposed staging and/or the proposed pricing and payment model, to be used to ensure that value for money is provided to the Commonwealth, both initially and over the life of the Contract; and

   e.   describe how the requirements of this clause will be achieved for any goods and/or services that will be provided to the Contractor by overseas AIC Subcontractors.

6.2.4   Procurement Activities Leading to Subcontract

6.2.4.1   This clause 6.2.4 only applies to the scope of procurement activities identified under the Supply Chain Management clause of the SOW.

6.2.4.2   The SCMP shall describe the Contractor's methodologies, systems, processes and tools for undertaking procurement activities leading to establishment of a Subcontract for the scope of procurement activities identified under clause 6.2.4.1, including:

   a.   providing an overview of the Contractor's standard procurement processes, including identifying the linkages with the Contractor's design teams for the Mission System and Support System;

   b.   describing how procurement activities to engage potential Subcontractors will be structured, including in relation to timings, to maximise opportunities for Australian Industry to participate in the procurement activities on a fair and equitable basis;

   c.   describing how the procurement activities to engage potential Subcontractors will address any specific procurement and Subcontract requirements of the Contract, including in relation to:

      (i)   Sovereignty requirements for operationally-significant systems or equipment for the Mission System;

      (ii)   Defence-Required Australian Industrial Capabilities (DRAICs) (if any);

      (iii)   other applicable Australian Industry Activities (AIAs); and

      (iv)   supply chain security, including in relation to cyber security;

   d.   describing any standard contract templates used by the Contractor, including providing an overview of standard contract conditions to be used;

   e.   describing how any commercial requirements and constraints that may apply to procurement activities for particular types of procurement activities) will be addressed, including in relation to Intellectual Property, security and export controls,

so that the widest possible market engagement can be undertaken to achieve the AIC Objectives;

f.   describing how whole-of-life costs for each procurement (ie, the acquisition, sustainment and disposal costs of the materiel being procured) will be addressed, particularly where a multi-stage procurement process may be used; and

g.   describing any key points in the procurement process leading to Subcontract where the Contractor may seek input from the Commonwealth, including the conditions under which this may occur and any mandatory requirements for Commonwealth engagement, as set out in the Contract.

6.2.4.3   The SCMP shall provide, as an annex to the SCMP, the Contractor's procurement plan for the items identified under clause 6.2.4.1, which shall:

a.   identify the materially-significant and high-cost (eg, >$5m) procurement activities as standalone lines in the plan;

b.   group other procurements into various categories aligned to the product breakdown structure for the Mission System, including sufficient accompanying information so that the scope of each category is clear;

c.   identify the timings (eg, linked to particular milestones for the relevant phases of the design, development, build, integration and V&V of the Mission System and Support System) when these procurement activities must be both started and Subcontracts entered, to ensure that the schedule for the Contract can be achieved;

d.   if required by the Supply Chain Management clauses in the SOW, identify the procurements for operationally-significant systems or equipment for the Mission System for which the Commonwealth may be identifying procurement-specific Sovereignty requirements additional to those set out in the Contract; and

e.   identify any proposed Long Lead Time Item procurements.

6.2.5   Supply Chain Development

6.2.5.1   The SCMP shall describe the Contractor's activities to develop Australian Industry, including through AIC Subcontractors, including:

a.   the specific sectors of Australian Industry for which assistance will be provided, including, where known, the specific Australian Entities to receive the assistance (by company name and ABN) and whether or not the company is a Small-to-Medium Enterprise (SME);

b.   the outcomes being sought in terms of specific enhancements to skills, knowledge, systems and/or infrastructure;

c.   the specific initiatives to be undertaken to achieve the enhancements, including any commitments required to enable these initiatives, such as the transfer of technology, knowhow or know-why, the envisaged timeframes, and the likely costs;

d.   whether or not the specific initiatives and commitments involve utilisation of Defence skilling programs and/or government grants that have been awarded or that are being sought;

e.   how achievement of the specific enhancements will be measured and reported;

f.   how the enhanced skills, knowledge, systems and/or infrastructure will be used by the Australian Entity and the Contractor and/or AIC Subcontractor to satisfy the requirements of the Contract;

g.   any planned follow-on activities to ensure that the enhancements are maintained; and

h.   any associated long-term (eg, post-Contract) benefits for the Industrial Capabilities that have been, or will be, implemented.

6.2.6   Subcontractor Management

6.2.6.1   The SCMP shall:

a.   provide an overview of the Contractor's standard processes for Subcontractor management, cross-referring to the Approved PMP, as appropriate; and

b.   describe any unique Subcontractor management processes in relation to AIC Subcontractors, which will be employed under the Contract to ensure that the AIC Objectives and AIC Obligations are achieved while satisfying the other requirements of the Contract, including in relation to the implementation and management of Subcontractor AIC plans and the associated reporting against those plans.

6.2.7   Supply Chain Assurance

6.2.7.1   The SCMP shall describe the Contractor's plan, including the associated measures, to address assurance of the supply chain over the period of the Contract, including:

a.   measures to address the resilience of the supply chain with respect to security of supply and diversity of supply for the acquisition phase (ie, in relation to the ongoing viability of the Australian Entities in the Contractor's supply chain and to address activities that could affect delivery of supplies from overseas for which greater resilience could be offered from an Australian Entity) in relation to, for example:

(i)   market forces affecting the availability of supply, such as demands on the supply chain from other areas in Defence or other industries;

(ii)   where a supply chain failure is identified as a significant risk to the achievement of the Contract; and/or

(iii) interdiction of supplies due to international government intervention; and

b.   for those elements of the supply chain that will be implemented in either Australia or NZ during the acquisition phase, and that are expected to be required during the sustainment phase, measures to monitor those elements so that they are ready and able to provide the required sustainment services at the commencement of the sustainment phase.

6.2.7.2   The SCMP shall detail the mechanisms for reporting to the Commonwealth, including through the CSR, the outcomes of the Contractor's monitoring and assurance activities, including:

a.   progress against the schedule of planned assurance activities against the ANZ elements of the Contractor's supply chain;

b.   a brief summary of the health of the implemented Industrial Capabilities, including an assessment of each Subcontractor's readiness to undertake the required acquisition and/or sustainment activities; and

c.   identification of any areas of concern, including:

(i)   a summary of the concern;

(ii)   the suggested plan to rectify, if required, including any actions proposed to be undertaken by the Commonwealth; and

(iii) a risk assessment if no action were to be taken to resolve the identified concerns.

6.2.7.3   For each AIC Subcontractor (including each Subcontractor (Support) under the Contract (Support)) that is an Australian Entity and is expected to provide services during the sustainment phase, the SCMP shall provide a short plan (not to exceed three pages) in a separate annex to the SCMP, which sets out the specific assurance activities that will be undertaken to assess the sustainment capabilities that have been implemented in Australia and, where applicable, NZ, by either the Contractor or an overseas AIC Subcontractor, which shall address the different assurance activities associated with (as applicable to each AIC Subcontractor that is an Australian Entity):

a.   Operating Support;

       b.   Engineering Support;

       c.   Maintenance Support;

       d.   Supply Support; and

       e.   Training Support.

6.2.7.4   The SCMP does not need to address the requirements of clause 6.2.7.3 until after the Support System Detailed Design Review (SSDDR), in accordance with the timings set out in the CDRL.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-PM-DEF-CMS-V5.3

2.   TITLE: CONTRACT MASTER SCHEDULE

3.   DESCRIPTION AND INTENDED USE

3.1   The Contract Master Schedule (CMS) describes the Contractor's planned sequence of activities, milestones and decision points to enable the objectives of the Contract to be met. Additionally, the CMS defines the current Contract schedule status, comparing the current schedule to the contracted schedule. The CMS also compares the current schedule status with any applicable baseline schedule.

3.2   The Contractor uses the CMS, including or supplemented by subordinate schedules, to:

   a.   plan the activities and sequencing of those activities to achieve the requirements of the Contract; and

   b.   provide schedule direction and status to the management team responsible for conduct of the work.

3.3   The Commonwealth uses the CMS to:

   a.   achieve assurance that the Contractor can meet its contractual obligations;

   b.   gain visibility into the Contractor's planning;

   c.   understand and evaluate the Contractor's approach to meeting the requirements of the Contract;

   d.   assist with monitoring the progress of the Contractor in meeting the requirements of the Contract; and

   e.   provide input into the Commonwealth's planning.

3.4   For the purposes of this DID, the term, '**Overlapping Period**', means the period of time during which the Contract and the Contract (Support), if applicable, operate in parallel.

4.   INTER-RELATIONSHIPS

4.1   The CMS inter-relates with the following data items, where these data items are required under the Contract or a related Contract (Support), as applicable:

   a.   Project Management Plan (PMP);

   b.   Support Services Management Plan (SSMP) under the Contract (Support);

   c.   Earned Value Management Plan (EVMP);

   d.   System Review Plan (SRP);

   e.   Contract Work Breakdown Structure (CWBS);

   f.   CWBS for the Contract (Support) (CWBS (Support));

   g.   Support Services Master Schedule (SSMS) under the Contract (Support); and

   h.   Earned Value Performance Report (EVPR).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

   Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The CMS shall be the primary schedule for the Contract, and all other schedules shall be subordinate to the CMS.

6.1.3   The CMS shall be capable of being displayed in a variety of formats, including:

a.   a Gantt chart;

b.   a list of all tasks, together with their planned and actual start and completion dates;

c.   a listing of milestones (including Milestones in the Contract), together with their original contracted baseline, current baseline, forecast, and actual completion dates; and

d.   a breakdown of Contract work into functional groupings such as project management, design, production, installation, integration, testing and trialing, Integrated Logistics Support (ILS), etc, as well as into Work Breakdown Structure (WBS) elements.

6.1.4   The CMS shall be capable of being displayed at a number of levels, as follows:

a.   <u>Summary Level:</u> The Summary Level of the CMS shall provide a graphical display of Contract activities, key events, and milestones at Level 3 of the WBS;

b.   <u>Intermediate Level:</u> The Intermediate Level of the CMS shall provide a graphical display of Contract activities, key events, and milestones at the control account level of the WBS. A CMS generated at the Intermediate Level shall be able to be rolled up to, and shall provide visibility of, the Summary Level; and

c.   <u>Detailed Level:</u> The Detailed Level of the CMS shall provide a graphical display of Contract activities, key events, and milestones at the work-package level of the WBS. A CMS generated at the Detailed Level shall be able to be rolled up to, and shall provide visibility of, both the Intermediate Level and the Summary Level.

6.1.5   The CMS shall be delivered as a soft copy of the CMS database using the software package identified in accordance with clause 3.2.3 of the SOW. The CMS database shall include all database elements used by the Contractor to develop, manage and update the CMS (eg, filter definitions, resources and notes). Any non-database elements of the CMS shall be delivered in accordance with the CDRL.

6.2   Specific Content

6.2.1   Data to be Included

6.2.1.1   The CMS shall graphically depict the Contract schedule and progress to work package level.

6.2.1.2   The CMS shall identify:

a.   activities and their estimated durations;

b.   milestones, including the Milestones identified in the Contract;

c.   the relationships and dependencies between activities and milestones to be accomplished by or for the Contractor in the performance of its obligations under the Contract;

d.   earliest and latest start and finish dates for all activities and milestones;

e.   critical and non-critical paths;

f.   floats available on all activities and milestones;

g.   allocated resources for each activity; and

h.   notes on the use of the CMS, including a glossary of terms and symbols used.

6.2.1.3   The CMS shall include:

   a.   all other schedules required under the Contract (eg, the Systems Engineering schedule and the ILS schedule) and, during the Overlapping Period, the Contract (Support) (eg, Phase In schedule);

   b.   Subcontractor schedules, to a level of detail consistent with the schedule detail for the Contractor's own schedule;

   c.   Milestones, and all milestones identified in the Contractor's plans (eg, the Approved SRP) and delivery milestones in Attachment C (if not already identified as Milestones);

   d.   other major events, as agreed between the Contractor and the Commonwealth Representative;

   e.   Commonwealth Representative tasks and tasks performed by Associated Parties, where such tasks interface with, and may affect, Contractor tasks;

   f.   Contract (Support) tasks that interact with Contract tasks, including those tasks associated with:

   (i)   transitioning from the Contract to the Contract (Support);

   (ii)   achieving the requirements of the Operative Date Milestone under the Contract (Support); and

   (iii) achieving the requirements of any Concurrent Contract Milestones (if applicable) under the Contract (Support); and

   g.   significant reviews, such as System Reviews.

6.2.1.4   The CMS shall include a Master Milestone Register, which records the significant milestones (including all Milestones) that the Contractor has planned to establish managerial control, contractual control, qualification for payment under the Contract, and any other important events associated with progression of the Contract. The Master Milestone Register shall, for each milestone, include a set of measurable conditions that will be used to assess the achievement of the milestone. The Master Milestone Register may be provided as a stand-alone document or may be integrated into the CMS if the CMS tool provides this functionality (eg, through use of the Notes function).

6.2.1.5   Each major work activity in the CMS shall contain milestones spaced approximately one month apart, or less if appropriate.

6.2.1.6   Each submission of the CMS shall provide visibility of progress against the current Approved schedule baseline.

6.2.1.7   Each submission of the CMS shall include the contracted baseline schedule (including all original Milestone completion dates), all Approved rescheduled baselines, the current working schedule, and forecast completion dates.

6.2.1.8   Forecast milestone completion dates shall reflect anticipated actual performance that differs from the original Milestone completion dates (or rescheduled dates established by an Approved rescheduled baseline).

6.2.2   **Integration with Other Management Information**

6.2.2.1   The CMS shall be traceable to, and be integrated with, the CWBS, Milestones and, when required under the Contract, the Contractor's Earned Value Management system (EVMS).

6.2.2.2   The precedence relationships and dependencies in the CMS shall be consistent with:

   a.   all schedule constraints identified in the Contract and, where applicable, the Contract (Support); and

   b.   the entry and exit criteria for the Milestones identified in Attachment C.

6.2.2.3   Each submission of the CMS shall be consistent with the associated EVPR (if applicable) delivered under the Contract.

6.2.3   Narrative Analysis

6.2.3.1   If not addressed in the associated EVPR (if applicable), each submission of the CMS shall contain an explanation of the cause of each Milestone's rescheduled forecast date that is later than the Milestone's current Approved schedule baseline date for the issue of the CMS in which the rescheduled forecast date was first reported. Subsequent issues of the CMS need only address changes from previously reported dates. The narrative analysis for the CMS shall address possible impact on other milestones and activities, and shall describe work-around plans to minimise the impact.

DATA ITEM DESCRIPTION

1.   **DID NUMBER:**   **DID-PM-DEF-CWBS-V5.3**

2.   **TITLE:**   **CONTRACT WORK BREAKDOWN STRUCTURE**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The Contract Work Breakdown Structure (CWBS) is the Contractor's extension of the Contract Summary Work Breakdown Structure (CSWBS) and forms the framework for Contract planning, management and status reporting, and for estimating costs, schedule and technical achievements at completion.

3.2   The Contractor uses the CWBS to:

    a.   define the work effort necessary to successfully achieve the end-objective of the Contract;

    b.   assist with estimating the cost, schedule and resource requirements for the Contract;

    c.   ensure that there is a clean structure for the organisation and management of the project and that there are clear accountabilities for project outcomes; and

    d.   achieve integrated cost, schedule and technical control.

3.3   The Commonwealth uses the CWBS to:

    a.   gain visibility into the Contractor's planning;

    b.   understand and evaluate the Contractor's approach to meeting the requirements of the Contract;

    c.   assist with monitoring the progress of the Contractor in meeting the requirements of the Contract; and

    d.   as a source of input to planning performed by the Commonwealth Representative.

4.   **INTER-RELATIONSHIPS**

4.1   The inter-relationship of the CWBS with other plans is as described in the Project Management Plan (PMP).

4.2   The CWBS is related to, and shall be consistent with, the Contract Master Schedule (CMS).

5.   **APPLICABLE DOCUMENTS**

5.1   The following documents form a part of this DID to the extent specified herein:

    DEF(AUST) 5664A   Work Breakdown Structures for Defence Materiel Projects

6.   **PREPARATION INSTRUCTIONS**

6.1   **Generic Format and Content**

6.1.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.1.2   The CSWBS shall form the basis for preparation of the CWBS by the Contractor.

6.2   **Specific Content**

6.2.1   **General**

6.2.1.1   The CWBS shall comprise a Work Breakdown Structure (WBS) index, a WBS graphic (optional), and a WBS dictionary.

6.2.1.2   The CWBS, including the WBS dictionary, shall comply with DEF(AUST) 5664A, including Recommended Practices 2, 5, 9, 10, 11, and any other Recommended Practices as determined by the Contractor.

6.2.2   WBS Index

Note: The WBS index is an indentured list of WBS elements and sub-elements, starting with a single level 1 element (the Contract), incorporating the high-level WBS element structure which is invoked contractually (the CSWBS), and the lower-level elements of the Contractor's WBS necessary to provide an appropriate framework throughout the project for product and service definition and control.

6.2.2.1   The CWBS shall include a WBS index delivered in a tool that has an Outline Mode (such as Microsoft Word), such that it can be reviewed at any level of expansion.

6.2.2.2   The WBS index shall be derived from the WBS dictionary and each record in the WBS index shall include:

     a.   WBS element number;

     b.   WBS element title;

     c.   WBS element revision date and revision number;

     d.   task agency; and

     e.   cross references to the conditions of contract and Statement of Work.

6.2.3   WBS Graphic

6.2.3.1   The CWBS may include a WBS graphic, which contains the same information as the WBS index, but shown in a graphical form, usually a tree structure.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-PM-DEF-DCOD-V5.3

2.   TITLE: DATA MANAGEMENT SYSTEM CONCEPT OF OPERATION DOCUMENT

3.   DESCRIPTION AND INTENDED USE

3.1   The Data Management System (DMS) Concept of Operation Document (COD) describes the Contractor's implementation of the DMS Contract requirements to enable electronic interchange and processing of Contract data.

3.2   The Contractor uses the DMS COD to:

a.   describe the Contractor's implementation of the DMS;

b.   detail the requirements for implementing the DMS at the Commonwealth's premises; and

c.   provide an operators' manual for all authorised users, including Commonwealth Authorised Users, to enable the DMS to be effectively operated.

3.3   The Commonwealth uses the DMS COD to:

a.   understand the Contractor's implementation of the DMS;

b.   determine any Commonwealth actions to implement, operate and manage the DMS; and

c.   operate the DMS.

4.   INTER-RELATIONSHIPS

4.1   The DMS COD is subordinate to the following data items, where these data items are required under the Contract:

a.   Project Management Plan (PMP);

b.   Integrated Support Plan (ISP); and

c.   Technical Data Plan (TDP).

4.2   The DMS COD inter-relates with the following data items, where these data items are required under the Contract:

a.   all data items derived from the Master Technical Data Index (MTDI); and

b.   Data Accession List (DAL).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.2   Specific Content

6.2.1   DMS Overview

6.2.1.1   The DMS COD shall:

a.   explain the purpose of the DMS;

b.   describe the physical and logical architecture of the DMS to the extent that all parties need to understand in order to be able to connect with the DMS; and

c.   list the computing equipment, including any special hardware or software, required by the Commonwealth Authorised Users of the DMS.

6.2.2   DMS Users

6.2.2.1   The DMS COD shall:

a.   identify all users of the DMS, including Commonwealth Authorised Users;

b.   detail the access rights of the Commonwealth Authorised Users at all locations to the DMS; and

c.   detail the access rights of the Contractor and the Subcontractors to the DMS.

6.2.3   DMS Contract Data

6.2.3.1   The DMS COD shall:

a.   list the types of electronic data that shall be available for both formal and informal communications via the DMS;

b.   identify the processes for updating and maintaining the index of data within the DMS, including, if required under the Contract, the data defined by the DAL; and

c.   list all the electronic data formats used in the DMS for which the Commonwealth Authorised Users will be provided access.

6.2.4   DMS Implementation and Management

6.2.4.1   The DMS COD shall:

a.   list all software packages and necessary licences required to be supplied by the Contractor to enable the Commonwealth Authorised Users to access the electronic data in the DMS (both locally and remotely);

b.   detail the procedures, which are required to be followed by the Commonwealth Representative, for the configuration of all necessary software that is required to provide full DMS functionality, including the administration procedures to control access rights;

c.   detail the Configuration Management (CM) procedures used for the management of the DMS, including:

    (i)   cross-platform document CM (eg, across mirrored sites, Contractor-to-Subcontractor, etc);

    (ii)   electronic document management; and

    (iii)   where these CM procedures are not covered by the Configuration Management Plan (CMP) delivered under the Contract;

d.   detail any time restrictions, using Australian Eastern Standard Time, when DMS access may be limited (eg, DMS scheduled maintenance);

e.   detail the system security aspects of the DMS, including:

    (i)   controlled system access;

    (ii)   system administration functions to control data access;

    (iii)   file transfer protocols used;

    (iv)   security classification of material that will be able to be released on the DMS;

    (v)   procedures for the handling, management, transfer, release, etc, of classified material (if required);

    (vi)   procedures for periodic back-up of electronic data, including a list of the data files that should be backed up, how the backup is performed, and how such files are recovered; and

     (vii)   any other requirements to ensure that the DMS appropriately addresses cyber security;

f.   detail the system administration functions of the DMS, which Commonwealth Authorised Users may be required to perform, including a description of all routine administration that is to be carried out and the actions required to perform such administration;

g.   detail the procedures to be used in formal and informal communications for the following:

    (i)   notification of actions between the Commonwealth Authorised Users (eg, delivery, receipt, approval, non-approval, comments, etc);

    (ii)   access and navigation of the DMS;

    (iii)   downloading, uploading, and viewing DMS data; and

    (iv)   how comments are to be provided for each document type (eg, native file formats, etc);

h.   detail how the DMS manages the promotion of data from one status to the next (eg, working, draft submission, final submission, Approved, and Accepted);

i.   detail the point-of-contact for assisting Commonwealth Authorised Users with problem resolution and to answer questions concerning the DMS; and

j.   detail any other DMS miscellaneous issues.

6.2.5   DMS Training

6.2.5.1   The DMS COD shall detail the training plan for the DMS, including:

a.   proposed venue(s);

b.   proposed instructors;

c.   participants;

d.   length of the training session;

e.   scheduled training date(s); and

f.   training materials that will be provided.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-PM-HSE-HSMP-V5.3

2.   TITLE: HEALTH AND SAFETY MANAGEMENT PLAN

3.   DESCRIPTION AND INTENDED USE

3.1   The Health and Safety Management Plan (HSMP) describes how the Contractor will manage Work Health and Safety (WHS) for the work to be performed under the Contract. Except in relation to work carried out on Commonwealth Premises, the HSMP does not address safety considerations in relation to the design, development, implementation or Verification and Validation (V&V) of either the Mission System or the Support System, as these requirements are addressed under the system safety program.

3.2   The Contractor uses the HSMP to:

   a.   identify the WHS requirements to be met in the performance of work under the Contract, including requirements for Commonwealth Premises, when applicable;

   b.   define, manage and monitor its program of activities in relation to WHS matters (including hazard and risk management consistent with WHS Legislation);

   c.   provide direction and guidance to the Contractor's team (including Subcontractors) in relation to WHS matters, their responsibilities and the processes to be used; and

   d.   ensure that all relevant persons, with a WHS duty in relation to the same matter, consult, co-operate and co-ordinate, in accordance with the WHS Legislation.

3.3   The Commonwealth uses the HSMP to:

   a.   gain assurance that the Contractor and the Commonwealth can meet their statutory obligations with respect to WHS;

   b.   gain assurance that the Contractor provides safe outcomes, in terms of safety risks to Commonwealth Personnel and other workers performing work under the Contract;

   c.   gain visibility of the Contractor's planning for WHS requirements of the Contract, and to provide a basis for evaluating performance in relation to those requirements; and

   d.   understand the Contractor's activities for co-ordination with the Commonwealth and Associated Parties, to assist the Commonwealth with discharging its WHS duties in relation to work performed under the Contract.

4.   INTER-RELATIONSHIPS

4.1   The HSMP is subordinate to the Project Management Plan (PMP).

4.2   The HSMP inter-relates with the following data items, where these data items are required under the Contract:

   a.   Safety Data Sheets (SDSs), and

   b.   System Safety Program Plan (SSPP).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

SafetyMan	Defence Safety Manual
AS/NZS ISO 45001:2018	Occupational health and safety management systems— Requirements with guidance for use
	WHS Legislation and Codes of Practice approved under section 274 of the *Work Health and Safety Act 2011* (Cth).

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   When the Contract has specified delivery of another data item that contains aspects of the required information, the HSMP shall summarise these aspects and refer to the other data item.

6.1.3   If a WHS Management System (WHSMS) is required under the Contract, and the WHSMS is accessible to the Commonwealth Representative and contains aspects of the information required by this DID, the HSMP shall summarise these aspects and refer to the WHSMS.

6.1.4   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   Relevant Legislation and Policy

6.2.1.1   The HSMP shall list the legislation relating to WHS, including the WHS Legislation, that is applicable to the work and the site(s) where the work is being, or will be, performed.

6.2.1.2   Where work is to be undertaken on Commonwealth Premises, the HSMP shall list the relevant Defence WHS policies and procedures, as identified in clause 9 of the SOW.

6.2.2   Work Health and Safety Management

6.2.2.1   The HSMP shall describe (including by reference to the WHSMS) how WHS matters applicable to Contract work and Contractor-controlled workplace(s) are managed, including:

a.   within the Contractor's organisation, the names, positions and WHS responsibilities of all persons whose positions or roles involve specific WHS responsibilities;

b.   the arrangements between the Contractor, Subcontractors, the Commonwealth and Associated Parties for the consultation, co-operation and co-ordination of activities required for compliance with WHS Legislation at workplaces used for the Contract;

c.   the arrangements for managing, recording and reporting WHS incidents (including Notifiable Incidents);

d.   any site-specific WHS rules (eg, including details of, or reference to, access controls and requirements for personal protective equipment), and the arrangements for ensuring that all persons at the workplace are informed of these rules;

e.   processes for hazard identification (including by workplace WHS inspections), risk assessment, elimination and control measures, including safe work method statements where these are required by WHS Legislation;

f.   the resources available for the provision of first aid, and the methods for ensuring that all persons at the workplace are informed of these resources;

g.   the arrangements for the collection, and any assessment, monitoring and review, of the safe work method statements required by WHS Legislation; and

h.   how WHS compliance and performance will be monitored (including through WHS audits), recorded and reported.

6.2.3   Work Health and Safety Management System

6.2.3.1   If a WHSMS is required under the Contract, the HSMP shall describe how the Contractor will establish and maintain a WHSMS that satisfies the requirements of clause 9.3.3 of the SOW.

6.2.3.2   If the Contract requires the WHSMS to be certified by an independent certification organisation, the HSMP shall state how this certification will be maintained.

6.2.4   Work on Commonwealth Premises

6.2.4.1   Where work is to be performed on Commonwealth Premises, the HSMP shall describe the Contractor's processes for participating in, or reporting to, any applicable site management committees, health and safety management committees or similar bodies.

6.2.4.2   Where work is to be performed on Commonwealth Premises, the HSMP shall describe, for Contractor and Subcontractor personnel, how work will be managed to meet Defence's WHS requirements, and not compromise Defence's duty of care, including:

    a.   provision of appropriate site induction and safety training;

    b.   monitoring of safe work performance personnel; and

    c.   safety evaluation of work performed by personnel.

6.2.5   Commonwealth Personnel

6.2.5.1   The HSMP shall describe the requirements for safety induction briefings and training to be provided to Commonwealth Personnel located on Contractor or Subcontractor premises, including any Commonwealth Premises being managed by the Contractor.

6.2.6   Management of Prescribed Activities and Complex Risks

6.2.6.1   The HSMP shall summarise the significant WHS hazards and risks inherent in the work to be performed under the Contract, including work involving Prescribed Activities.

6.2.6.2   The HSMP shall describe the approach to managing the hazards and risks identified in clause 6.2.6.1 where WHS management is inherently complex.

6.2.6.3   If a WHSMS is not required under the Contract and Contract work involves discrete activities for which WHS management is inherently complex and that would benefit from activity-specific planning, the HSMP shall include activity-based WHS plans in Annex B.

6.2.7   Emergency Plans

6.2.7.1   The HSMP shall outline the emergency plans to be maintained for the Contract, including any Commonwealth co-ordination or other arrangements required in an emergency.

6.2.8   Problematic Substances and Problematic Sources

6.2.8.1   Where work under the Contract will be performed on Commonwealth Premises, the HSMP shall include, at Annex A, details of the Problematic Substances and Problematic Sources that have been Approved for use at the Commonwealth Premises. Annex A shall include:

    a.   identification details for each Problematic Substance, sufficient to identify the applicable Safety Data Sheet;

    b.   locations, including any discrete sites or buildings within Commonwealth Premises, where the Problematic Substances and/or Problematic Sources will be located;

    c.   for Problematic Substances, the maximum quantities or volumes, as applicable, to be held at each location;

    d.   for Problematic Sources, the applicable ARPANSA source licence number;

    e.   the Approved purpose(s) for use; and

    f.   Approval details, including the Commonwealth Representative or authorised delegate's details, date of Approval, and related documents (eg, notices or minutes).

6.2.8.2   For Contract work performed in Australia but not performed on Commonwealth Premises, the HSMP shall include reference(s) to the location(s) within the Contractor's WHSMS, or otherwise, where Problematic Substances and Problematic Sources are detailed.

6.3   Annexes

Annex A: Problematic Substances and Problematic Sources Approved for use at Commonwealth Premises

Annex B: Activity-based WHS plans in accordance with clause 6.2.6.3 (if required).

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-PM-HSE-SDS-V5.3

2.   TITLE: SAFETY DATA SHEET

3.   DESCRIPTION AND INTENDED USE

3.1   A Safety Data Sheet (SDS) provides information on the properties of Hazardous Chemicals, how they affect health and safety, and how to manage the Hazardous Chemical in the workplace. For Hazardous Chemicals, SDSs shall follow the code of practice approved under section 274 of the *Work Health and Safety Act 2011* (Cth) titled *Preparation of Safety Data Sheets for Hazardous Chemicals* (hereafter referred to as 'approved SDS code of practice'). In addition, SDSs are used by Defence to document the properties of Ozone Depleting Substances (ODSs), Synthetic Greenhouse Gases (SGGs) and Dangerous Goods that are not also classified as Hazardous Chemicals.

4.   INTER-RELATIONSHIPS

4.1   The SDS inter-relates with the following data items, or annex to the Statement of Work (SOW), where these data items or annexes are required under the Contract:

    a.   the Health and Safety Management Plan, Project Management Plan or Support Services Management Plan, as applicable to the Contract for the purposes of recording Approved Substances; and

    b.   problematic substances and problematic sources in supplies (SOW annex);

    c.   Hazard Analysis Reports and Hazard Log; and

    d.   Safety Case Report or Materiel Safety Assessment, as applicable.

5.   APPLICABLE DOCUMENTS

5.1   The following document forms a part of this DID to the extent specified herein:

approved SDS code of practice	code of practice approved under section 274 of the Work Health and Safety Act 2011 (Cth) titled Preparation of Safety Data Sheets for Hazardous Chemicals.
GHS as defined in subregulation 5(1) of the *Work Health and Safety Regulations 2011* (Cth)	*Globally Harmonised System of Classification and Labelling of Chemicals*, Seventh revised edition, published by the United Nations as modified under Schedule 6 of the Work Health and Safety Regulations 2011 (Cth).

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions provided in the approved SDS code of practice.

Note: The approved SDS code of practice acknowledges that certain international SDS formats provide an equivalent standard of information to that required by the approved SDS code of practice. The intention is to permit some flexibility in the format of a SDS, while ensuring that the information contained in the SDS meets the requirements of the approved SDS code of practice.

6.1.2   Non-generic information may be submitted in the Contractor's preferred format.

6.2   Specific Content

6.2.1   The content of the SDS for Hazardous Chemicals shall follow the requirements of the approved SDS code of practice, which is available from the following internet address:

    http://safeworkaustralia.gov.au/

6.2.2   Where the Contract requires an SDS for an ODS, SGG or Dangerous Good, which is not also a Hazardous Chemical, and therefore not required under the *code of practice*, the SDS shall include information that relates to the applicable regulatory requirements for those SDS sections that remain valid.

Note: If an SDS exists within the Australian ChemAlert database, then the requirements of this DID may be met if the applicable SDS is identified to the Commonwealth Representative by its unique record within that database.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-PM-LCC-LCCMP-V5.3

2.   TITLE: LIFE CYCLE COST MANAGEMENT PLAN

3.   DESCRIPTION AND INTENDED USE

3.1   The Life Cycle Cost Management Plan (LCCMP) describes the Contractor's plans, methodologies and processes for meeting the Life Cycle Cost (LCC) program requirements of the Contract.

3.2   The Contractor uses the LCCMP to:

a.   define, manage and monitor the LCC program;

b.   ensure that those parties (including Subcontractors) who are undertaking LCC activities understand their respective responsibilities, the processes to be used, and the time-frames involved; and

c.   ensure that those parties (including Subcontractors) who are providing data to enable LCC activities to be undertaken understand their respective responsibilities, the data to be provided, and the time-frames for providing that data.

3.3   The Commonwealth uses the LCCMP to:

a.   understand and evaluate the Contractor's approach to meeting the LCC program requirements of the Contract; and

b.   identify and understand the Commonwealth's involvement in the Contractor's LCC program, including the monitoring of the Contractor's program.

4.   INTER-RELATIONSHIPS

4.1   The LCCMP is subordinate to the Project Management Plan (PMP).

4.2   The LCCMP inter-relates with the following data items, where these data items are required under the Contract:

a.   Integrated Support Plan (ISP);

b.   Systems Engineering Management Plan (SEMP); and

c.   Support System Description (SSDESC).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   General

6.2.1.1   The LCCMP shall describe the objectives, scope, constraints, and assumptions associated with the Contractor's LCC program. Any risks associated with the Contractor's LCC program shall be documented in the Risk Register in accordance with the Approved Risk Management Plan; however, the LCCMP shall describe the risk-management strategies associated with any global, LCC-related risks.

6.2.2   LCC Program Organisation

6.2.2.1   If different from the PMP, the LCCMP shall describe the Contractor's organisational arrangements for meeting the LCC program requirements of the Contract, including:

a.   the Contractor's and Approved Subcontractor's project organisations and management structures, showing how the LCC organisational and managerial arrangements integrate into the higher-level management structures and organisations;

b.   the interrelationships and lines of authority between all parties involved in the Contractor's LCC program, including those parties responsible for the provision of LCC-related data; and

c.   the responsibilities of all parties involved in the Contractor's LCC program, including the identification of the individual within the Contractor's organisation who will have managerial responsibility and accountability for meeting the LCC requirements of the Contract.

6.2.3   LCC Program Overview

6.2.3.1   The LCCMP shall provide an overview of the Contractor's program for meeting the LCC requirements of the Contract, including:

a.   the major activities to be undertaken, when, and by whom;

b.   the integration of Subcontractors into the Contractor's LCC program;

c.   the interfaces between the LCC program and the Systems Engineering (SE) and Integrated Logistics Support (ILS) programs, including the mechanisms for ensuring that the LCC activities and outcomes are integrated into the developmental activities for both the Mission System and the Support System;

d.   an overview of any LCC modelling tools that will be used by the Contractor and Approved Subcontractors (including any LCC model or tool that will be used in conjunction with, or as a supplement to, the LCC model specified in the SOW);

e.   the processes and procedures to be employed by the Contractor to undertake the LCC activities;

f.   for any new or modified procedures, an overview of the scope of the new or modified procedures and the responsibilities and timeframes for developing and approving these procedures;

g.   any LCC-related training that the Contractor and Subcontractors need to undertake, including details of proposed training courses, personnel or positions identified to undertake those courses, and timeframes in which the courses will be undertaken;

h.   the provision of any training to Commonwealth personnel in any LCC model or tool (other than the LCC model specified in the SOW), including details of proposed courses and proposed timeframes for those courses; and

i.   the expectations of the Contractor with respect to the Commonwealth.

6.2.4   LCC Model Development

6.2.4.1   The LCCMP shall describe the Contractor's methodology for undertaking the development of the LCC model(s) required under the Contract, including:

a.   the suite of LCC models and tools that will be used, including the function of each of the models and tools and the relationships between each of these models and tools in performing the LCC activities;

b.   the identification of extant LCC data at the start of the Contract, with such data to be grouped under each Level 3 element of the Contract Work Breakdown Structure (CWBS);

c.   the identification of those elements of the Mission System and the Support System that are either most likely or least likely to be influenced by the program of LCC activities, including the rationale for this categorisation;

d.   the program of activities for developing the LCC model (cross-referencing to the LCC activities in the Contract Master Schedule (CMS) and in any subordinate schedules);

e.   the scope of LCC model that will be developed, including the indenture level of the physical build structure for the Mission System that will be modelled;

f.   the processes for incorporating data for Government Furnished Equipment (GFE) and Government Furnished Services (GFS) into the LCC model;

g.   the maturity of the model, with respect to both the Mission System and the Support System, that will exist at each of the Mandated System Reviews;

h.   the assumptions that will be used to develop the LCC model, including any limitations or simplifications of reality;

i.   the processes for validating the LCC model;

j.   the processes for ensuring that the LCC model is consistent with the information sources used, the build structure of, and any assumptions underpinning:

    (i)   the CWBS;

    (ii)   the Logistic Support Analysis Record (LSAR), if an LSAR is required under the Contract;

    (iii)   the Spares-optimisation model, if a Spares-optimisation model is required under the Contract; and

    (iv)   any other models used by the Contractor to model either the Mission System or the Support System (eg, Level Of Repair Analysis model);

k.   the processes and procedures for collecting and recording LCC data, including how this data will be kept current with the developmental status of the Mission System and the Support System;

l.   the identification of any LCC-related data that may have to be provided by the Commonwealth (eg, cost data for Commonwealth elements of the Support System and LCC-related data for GFE/GFS), including the timeframe for the delivery of this data;

m.   the processes and procedures for identifying and analysing LCC drivers, including reviewing and updating these LCC drivers as the developmental status of both the Mission System and Support System changes and better information becomes available;

n.   the strategy and methodology for using the LCC model to analyse LCC, including performing sensitivity and trade-off analyses; and

o.   the strategy, methodology and assumptions associated with modelling software life-cycle costs.

6.2.5   LCC Model Usage

6.2.5.1   The LCCMP shall detail the strategy, methodology and program of activities for utilising the outcomes of the LCC analyses, including:

a.   the outcomes from the analyses of the LCC drivers; and

b.   the outcomes from the sensitivity and trade-off analyses,

in the design and development of the Mission System and the Support System to minimise LCC across both of these systems, while meeting the other requirements of the Contract.

6.2.5.2   The LCCMP shall detail the strategy, methodology and program of activities for demonstrating to the Commonwealth at each applicable Mandated System Review that the Contractor's developmental activities will result in a combined Mission System and Support System that minimises LCC, while meeting the other requirements of the Contract.

DATA ITEM DESCRIPTION

1.   **DID NUMBER:**   **DID-PM-LCC-LCCRM-V5.3**

2.   **TITLE:**   **LIFE CYCLE COST REPORT AND MODEL**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The Life Cycle Costing Report and Model (LCCRM) provides the details associated with the development of the Life Cycle Cost (LCC) model(s), the results of the LCC analysis activities, and the data files for the LCC model(s).

3.2   The Contractor uses the LCCRM to:

a.   document the LCC model(s) and the results of LCC analysis activities undertaken;

b.   assist with demonstrating to the Commonwealth that the Contractor's design for both the Mission System and the Support System represents a solution that minimises LCC; and

c.   provide recommendations to the Commonwealth for proposed design solutions that, if adopted, would reduce LCC.

3.3   The Commonwealth uses the LCCRM to:

a.   evaluate the Contractor's design for both the Mission System and Support System with respect to LCC;

b.   assist with monitoring the progress of the Contractor's developmental activities under the Contract; and

c.   enable the Commonwealth to undertake Independent Verification and Validation (IV&V) of the Contractor's design with respect to LCC.

4.   **INTER-RELATIONSHIPS**

4.1   The LCCRM is subordinate to the following data items, where these data items are required under the Contract:

a.   Project Management Plan (PMP); and

b.   Life Cycle Cost Management Plan (LCCMP).

4.2   The LCCRM inter-relates with the following data items, where these data items are required under the Contract:

a.   Mission System design documents, as defined in the Mission System Technical Documentation Tree (MSTDT);

b.   Support System Description (SSDESC);

c.   Level Of Repair Analysis Report (LORAR);

d.   Task Analysis Report (TAR);

e.   Logistic Support Analysis Record (LSAR);

f.   Recommended Spares Provisioning List (RSPL);

g.   Packaging Provisioning List (PACKPL);

h.   Support and Test Equipment Provisioning List (S&TEPL); and

i.   Training Equipment List (TEL).

5.   **APPLICABLE DOCUMENTS**

5.1   The following documents form a part of this DID to the extent specified herein:

Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   General

6.2.1.1   The LCCRM shall provide sufficient detail to enable the Commonwealth to understand:

a.   the LCC model(s) developed by the Contractor;

b.   the LCC analysis activities undertaken by the Contractor; and

c.   the use made of the outcomes of the LCC analyses by the Contractor in the design and development of both the Mission System and the Support System and trade-offs between the two systems.

6.2.2   LCC Model Development

6.2.2.1   The LCCRM shall describe the LCC model(s) developed by the Contractor, including:

a.   definitions of all terms, acronyms, and model parameters used;

b.   any assumptions underpinning, or limitations with, the LCC model(s), including:

(i)   the scope of the Mission System that has been modelled, including the indenture level of the physical build structure for the Mission System;

(ii)   the modelling of the operational concepts and the Life-of-Type (LOT) for the Mission System (as documented in the Operational Concept Document (OCD));

(iii)   the modelling of Software life-cycle costs; and

(iv)   the modelling of the Support System,

c.   any departures from the information sources utilised, the build structure of, and the assumptions underpinning:

(i)   the Contract Work Breakdown Structure (CWBS);

(ii)   the LSAR, if an LSAR is required under the Contract;

(iii)   the spares-optimisation model; and

(iv)   any other models utilised by the Contractor to model either the Mission System or the Support System (eg, Level Of Repair Analysis model),

d.   the input data used to build the LCC model(s), including:

(i)   the source of the data;

(ii)   the date that the data was first generated;

(iii)   if the data is an estimate, the nature of the estimate;

(iv)   the source currency of the cost data and the exchange rates utilised to bring the cost data into a common currency;

(v)   the base year of each cost element and the factors utilised to bring each cost element into a common base year; and

(vi)   the justification for the use of the data.

Note: Examples of the data that should be justified include cost data, Turn-Around Time (TAT) data, Administration and Logistics Delay Time (ALDT) data, and reliability and maintainability data.

6.2.3   LCC Analysis Activities and Outcomes

6.2.3.1   The LCCRM shall describe the LCC analysis activities that have been undertaken by the Contractor, including details of the sensitivity and trade-off analyses conducted and results obtained.

6.2.3.2   The LCCRM shall detail:

a.   the LCC drivers that have been identified; and

b.   the analyses of these LCC drivers that have been undertaken.

6.2.4   Integration of the LCC Analysis Outcomes into the Developmental Program

6.2.4.1   The LCCRM shall detail the approach adopted to address the identified LCC drivers and the outcomes of the sensitivity and trade-off analyses to ensure that the design of the Mission System and Support System is a solution that minimises LCC.

6.2.4.2   The LCCRM shall identify any proposed design solutions for either the Mission System or the Support System (or both), which could result in:

a.   a transfer of costs between the Mission System and the Support System; or

b.   a transfer of costs between any of the Commonwealth, the acquisition Contractor (and Subcontractors), and the Contractor (Support) (and Subcontractors (Support)).

6.2.4.3   The LCCRM shall detail which of the identified design solutions that the Contractor recommends should be adopted by the Commonwealth, including the rationale for the recommendations.

6.2.5   LCC Model

6.2.5.1   The LCCRM shall include the LCC data files for the LCC model(s) in a form that does not require the Commonwealth to separately key the LCC data into the LCC model(s).

6.2.5.2   Where the LCC modelling tool or software used by the Contractor is not held by the Commonwealth, the Contractor shall provide:

a.   executable files for the LCC model;

b.   sufficient details of the LCC modelling tool or software to enable the Commonwealth to undertake IV&V of the LCC model; and

c.   Cost Estimating Relationships and LCC algorithms, if available.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-PM-MEAS-MEASP-V5.3

2.   TITLE: MEASUREMENT PLAN

3.   DESCRIPTION AND INTENDED USE

3.1   The Measurement Plan describes how the information needs of the Contractor and the Commonwealth under the Contract will be addressed to provide an objective basis for informed decision making. Typically, this will require the specification of the measurement data to address identified information needs and the procedures for the collection, analysis, and reporting of measurement data across all aspects of the Contract (eg, project management, engineering, logistics, Verification and Validation, and quality). The Measurement Plan provides a formal basis of understanding between the Contractor and the Commonwealth on how the measurement program will be executed to meet contractual requirements.

3.2   The Contractor uses the Measurement Plan to satisfy agreed Contractor and Commonwealth information needs regarding Contract progress, risks and issues, system performance, quality and other Contract requirements.

3.3   The Commonwealth uses the Measurement Plan to monitor the Contractor's measurement program and to determine whether the program will satisfy Commonwealth information needs.

4.   INTER-RELATIONSHIPS

4.1   The Measurement Plan is subordinate to the following data items, where these data items are required under the Contract:

      a.   Project Management Plan (PMP); or

      b.   Support Services Management Plan (SSMP).

4.2   The Measurement Plan inter-relates with the following data items, where these data items are required under the Contract:

      a.   Contract Master Schedule (CMS);

      b.   Support Services Master Schedule (SSMS);

      c.   Contract Status Report (CSR);

      d.   Systems Engineering Management Plan (SEMP);

      e.   Software Management Plan (SWMP);

      f.   Software Support Plan (SWSP);

      g.   Integrated Support Plan (ISP);

      h.   Verification and Validation Plan (V&VP); and

      i.   Quality Plan (QP).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

      AS/NZS ISO/IEC/IEEE   Systems and software engineering - Measurement
      15939:2022   process

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   General

6.2.1.1   The Measurement Plan shall:

a.   describe the Contractor's processes and organisational relationships for defining, collecting, analysing and reporting measurement data to satisfy identified information needs; and

b.   identify the information needs of the Contractor and the Commonwealth under the Contract, unless these needs are being delivered separately in accordance with clause 6.3.1 of this DID.

6.2.2   Measurement Organisation

6.2.2.1   The Measurement Plan shall identify the organisations involved in the measurement program, their role, responsibilities under the Contract, and the relationships between them.

6.2.2.2   Key individuals within each organisational entity shall be identified, together with the individuals' responsibilities with regard to the measurement program.

6.2.3   Measurement Approach

6.2.3.1   The Measurement Plan shall describe the approach to be applied in satisfying information needs through the measurement program.

6.2.4   Selection of Contract Information Needs

6.2.4.1   The Measurement Plan shall describe the process to be used to identify, prioritise, and select information needs for inclusion in the measurement program.

6.2.5   Measurement Information Model

6.2.5.1   The Measurement Plan shall describe the measurement information model to be used within the measurement program to link the information needs to other Contract processes, products and resources.

Note: Refer to AS/NZS ISO/IEC/IEEE 15939 Annex A for guidance on measurement information models.

6.2.5.2   The measurement information model shall describe how relevant attributes of Contract processes, products and resources are quantified and converted to indicators that provide a basis for decision-making.

6.2.5.3   The measurement information model shall clearly link the Contract objectives, information needs and the selected measures.

6.2.6   Selection of Measures

6.2.6.1   The Measurement Plan shall define the criteria to be used to select measures in accordance with the priority of the information needs.

Note: See AS/NZS ISO/IEC/IEEE 15939 Annex C for example criteria.

6.2.7   Tools and Databases

6.2.7.1   The Measurement Plan shall identify the tools and databases to be used within the measurement program.

Note: Typically, these tools would include graphical presentation tools, data collection tools (eg static code analysers and test coverage monitors), data analysis tools, and databases.

6.2.8   Data Collection and Storage Procedures

6.2.8.1   The Measurement Plan shall include the procedures for the collection, storage and verification of measurement data. Where these procedures are available to the Commonwealth elsewhere under the Contract, a reference to them shall suffice.

6.2.8.2   The Measurement Plan shall specify how and when data is to be collected and how and where the collected data is to be stored and verified.

Note: Further guidance can be found in AS/NZS ISO/IEC/IEEE 15939 Annex F.

6.2.9   Data Analysis Procedures

6.2.9.1   The Measurement Plan shall include the procedures for analysis of information products. Where these procedures are available to the Commonwealth elsewhere under the Contract, a reference to them shall suffice.

6.2.9.2   The Measurement Plan should specify the data analysis method(s) for evaluating the information products. The range of tools that would be needed to perform the data analysis should also be identified.

6.2.10   Reporting Procedures

6.2.10.1   The Measurement Plan shall include the procedures for the reporting of information products. Where these procedures are available to the Commonwealth elsewhere under the Contract, a reference to them shall suffice.

Note: See AS/NZS ISO/IEC/IEEE 15939 Annex G for guidance.

6.2.11   Measurement Evaluation

6.2.11.1   The Measurement Plan shall specify the points in time and/or the events (such as Mandated System Reviews) when the effectiveness of the measurement program is to be reviewed.

6.2.11.2   The Measurement Plan shall specify the criteria to be applied when evaluating the measurement process.

Note: Example criteria for the evaluation of a measurement process can be found in AS/NZS ISO/IEC/IEEE 15939 Annex E.

6.2.12   Configuration Management

6.2.12.1   The Measurement Plan shall identify the procedures for configuration management of measurement data, data definitions and the measurement plan itself, appropriately cross-referenced to the governing plan for configuration management (eg, the Configuration Management Plan (CMP)).

6.2.12.2   Where these procedures are available to the Commonwealth elsewhere under the Contract, a reference to them shall suffice.

6.2.13   Constraints

6.2.13.1   The Measurement Plan shall identify any constraints relating to the measurement program, such as confidentiality constraints on the data and information products, and describe any actions or precautions to be applied to manage these constraints.

6.3   Annex – Information Needs and Measures Specification

6.3.1   Delivery

6.3.1.1   Where the CDRL specifies the delivery of a data item entitled, 'Information Needs and Measures Specification', the requirements of this clause 6.3 shall be delivered as a stand-alone entity in accordance with the CDRL requirements for this data item. Otherwise, the requirements of this clause 6.3 shall be included as an annex to the Measurement Plan.

6.3.2   Contract Information Needs

6.3.2.1   The 'Information Needs and Measures Specification' shall identify all Contract information needs (ie, those required by the Commonwealth as well as those required for the Contractor's own use), together with their relative priority and relevance within the measurement program.

6.3.3   Measurement Specifications

6.3.3.1   The 'Information Needs and Measures Specification' shall include the following information in a tabular format for each information need to be addressed by the measurement program:

Information Need Description	
Information Need:	Identify what the measurement user (eg. manager or team member) needs to know in order to make informed decisions.
Information Category:	Identify the standard information category name (such as Schedule and Progress), or indicate that this is a new category.
Measurable Concept	
Measurable Concept:	Describe the concept (an idea for satisfying the information need by using relevant entities and their attributes).
Entities and Attributes	
Relevant Entities:	Identify the entity (object) that is to be measured. Entities include process or product elements of a contract.
Attributes:	For each entity, identify one or more attributes (properties or characteristics) that will be quantified. *[Note: for automated measurement, this must be the precise database element or other direct source of data.]*
Base Measure Specification	
Base Measures:	Identify base measures to support the information need. A base measure is a measure of a single attribute defined by a specified measurement method (eg. planned number of lines of code, cumulative cost to date). As data is collected, a value is assigned to a base measure.
Measurement Methods:	Identify the logical sequence of operations that define the counting rule to calculate each base measure (such as counting semicolons for code size).
Type of Method:	Identify the type of method used, either subjective (relying on human judgment) or objective (quantification).
Scale:	Identify the set of values, or set of categories, for the attribute measured (eg. integer values greater than 0).
Type of Scale:	Identify the type of scale - ratio (numeric data, 0 to infinity), interval (numeric data, 1 to infinity), ordinal (rankings), or nominal (categories).
Unit of Measurement:	Identify the standardised quantitative amount that will be counted to derive the value of each base measure, such as an hour or an A4 page of text. Include any information necessary to interpret or normalise the measure. For example, to compare 'lines of code' may require the unit to be defined as 'lines of C code' or 'lines of Ada code'.
Indicator Specification	
Indicator Description and Sample:	Provide a description and a display of one or more measures (base and derived) to support the user in deriving information for analysis and decision-making. An indicator is often displayed as a graph or chart.
Analysis Model:	Describe algorithms to be used with the measures. As needed, describe the underlying model of expected behaviour of the measures over time.
Decision Criteria:	Identify thresholds, limits, and targets used to trigger action or further investigation.

Indicator Interpretation: (sample chart)	For sample measures only, describe how the indicator in question was interpreted, and what decisions were made as a result.
Derived Measure Specification	
Derived Measure:	Describe any derived measures used. A derived measure is developed as a function of two or more values of base measures.
Measurement Function:	Identify the formula used to calculate each derived measure.
Data Collection Procedure (For Each Base Measure)	
Frequency of Data Collection:	Identify how often a measure will be collected (eg. monthly, weekly).
Responsible Individual:	Identify who is responsible for data collection and validation.
Phase or Activity in which Collected:	Identify lifecycle phases or activities when this data is collected.
Tools Used in Data Collection:	Identify tools used for data collection.
Verification and Validation:	Identify methods used to verify and validate the data.
Repository for Collected Data:	Identify where the identified data will be stored.
Data Analysis Procedure (For Each Indicator)	
Frequency of Data Reporting:	Identify how often an indicator will be generated (eg. monthly, weekly), including when the data will be delivered to the Commonwealth.
Responsible Individual:	Identify who is responsible for data analysis.
Phase or Activity in which Analysed:	Identify the lifecycle phase or activity during which analysis will be performed.
Source of Data for Analysis:	Identify the source of the data to be analysed.
Tools Used in Analysis:	Identify any tools to be used in the analysis.
Review, Report, or User:	Identify where the analysis will be reported and used (eg. System Review, monthly program review).
Additional Information	
Additional Analysis Guidance:	Provide any additional guidance that the measurement analyst should consider during the analysis. Indicate related indicators or measures. Indicate any additional decision criteria that may be considered at a later date.
Implementation Considerations:	Provide any implementation considerations that the measurement analyst should keep in mind. Identify any lessons learned or guidance.

6.3.4   Evaluation of Measurement Information Products

6.3.4.1   The 'Information Needs and Measures Specification' shall specify the criteria to be applied when evaluating the extent to which measurement information products support the satisfaction of information needs.

Note: Example criteria for the evaluation of information products can be found in AS/NZS ISO/IEC/IEEE 15939 Annex D.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-PM-MEET-AGENDA-V5.3

2.   TITLE: MEETING AGENDA

3.   DESCRIPTION AND INTENDED USE

3.1   The Meeting Agenda provides information concerning the purpose, location and schedule of meetings convened for the purpose of discharging the requirements of the Contract.

4.   INTER-RELATIONSHIPS

4.1   The Meeting Agenda is subordinate to the following data items, where these data items are required under the Contract:

> Nil.

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

> Nil

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   Non-generic information may be submitted in the Contractor's preferred format.

6.2   Specific Content

6.2.1   The Meeting Agenda shall incorporate agenda items and other input requested by the Commonwealth Representative and shall include:

a.   the purpose or objective of the meeting;

b.   the meeting location, date, starting time, and expected duration;

c.   a chronological listing of each major discussion topic, including the person responsible to take the lead on the topic;

d.   a list of individuals invited to attend the meeting, identifying their appointment and area of responsibility;

e.   the identity of the chair person(s);

f.   administrative information associated with the meeting including, where appropriate, access arrangements and the facilities available;

g.   a list of documentation to be reviewed either for, or at, the meeting; and

h.   any other information pertinent to the meeting.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-PM-MEET-MINUTES-V5.3

2.   TITLE: MEETING MINUTES

3.   DESCRIPTION AND INTENDED USE

3.1   Meetings Minutes are recorded to ensure an accurate account of all discussions, decisions and actions arising from meetings between the Contractor and the Commonwealth.

4.   INTER-RELATIONSHIPS

4.1   The Meeting Minutes are subordinate to the following data items, where these data items are required under the Contract:

      Nil.

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

      Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   Non-generic information may be submitted in the Contractor's preferred format.

6.2   Specific Content

6.2.1   Main Body

6.2.1.1   Meeting Minutes shall include:

      a.   a list of attendees by name, title, appointment, organisation and contact phone number;

      b.   a page that provides for agreement to the minutes by the senior representatives (Commonwealth and Contractor) who attended the meeting, with the page to also show details of any representatives who disagree with the minutes;

      c.   the purpose of the meeting;

      d.   the actual agenda followed at the meeting;

      e.   a summary of the discussion, decisions, agreements and directions determined during the course of the meeting;

      f.   a list of action items agreed at the meeting;

      g.   other information required by the chairperson to be recorded in the minutes; and

      h.   details of proposed next meeting.

6.2.2   Action Items

6.2.2.1   The action item list shall be attached to the Meeting Minutes. The action item list shall reflect the current status of all action items, including those that are closed and completed.

6.2.2.2   Actions items shall be numbered either as follows or in the Contractor's preferred format:

      AI:PPPPPP: MMM:NNN

      where -

        AI stands for Action Item;

PPPPPP is the Project Name or Identification;

MMM is the Meeting Identifier; and

NNN is the Action Item Number.

6.2.2.3   The action item list shall include:

a.   the party and individual responsible for undertaking the action item;

b.   the timeframe for completing the action item; and

c.   the history of the action item, including any transfer of responsibilities or changes in scope.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-PM-MGT-AFD-V5.3

2.   TITLE: APPLICATION FOR A DEVIATION

3.   DESCRIPTION AND INTENDED USE

3.1   The Application for a Deviation (AFD) is required to document the request and evaluation of a deviation from, or the non-conformance with, an approved design or controlled process.

3.2   The Contractor uses the AFD to inform the Commonwealth of a proposed deviation or non-conformance.

3.3   The Commonwealth uses the AFD as the basis for review and evaluation of the application for a deviation or non-conformance made by the Contractor.

4.   INTER-RELATIONSHIPS

4.1   The AFD is subordinate to the following data items, where these data items are required under the Contract:

        Nil.

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

        Departmental Quality Assurance Instruction 014, *Applying for a Deviation*

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions required by the form at Annex A to this DID (or equivalent electronic form) and, as applicable, the SOW clause for 'Deliverable Data Items' or the CDRL clause entitled 'General Requirements for Data Items'.

6.2   Specific Content

6.2.1   General Requirements

6.2.1.1   An AFD is required to be submitted for all applications for a deviation or waiver from, or non-conformance with, an approved configuration management baseline or variation from an approved process.

6.2.2   Specific Requirements

6.2.2.1   All AFDs shall be prepared and requested through the submission of a Department of Defence form, as per the example included at Annex A.

6.2.2.2   The AFD form submitted by the Contractor shall, as a minimum, include applicable header information and the completion of all mandatory fields in Part 1 of the form.

Note: If the Contractor has access to the Defence Protected Network, the Contractor should use the electronic form SG002 available from the 'e-Forms' application (as updated from time to time). Alternatively, the embedded PDF version may be used instead of the form at Annex A.

Note: For Configuration Management purposes, one AFD may result in one or more 'requests for variance'.

SG002.pdf

Annex:

A.   Application for a Deviation

SG   002
Revised Nov 2020

Department of Defence

Application for a Deviation

Distribution
Original – Applicant's copy
Copy 2 – QAR
Copy 3 – Contracting Authority
Copy 4 – Ordering Authority
Copy 5 – DAA
Copy 6 – User authority

Applicant's reference no.	**Applicant requests decision by**	
QAR authority reference no.	Date	(Negotiated with the contract authority)

Note: Policy and procedure for this process are issued as a Department Quality Assurance Instruction

1. Under no circumstances shall the applicant incorporate the deviation until approval from the appropriate contract authority has been received.

2. Approval of this deviation does not represent an authority to change the design nor to extend the non-conformance, of any other item in the contract.

3. The applicant must be a responsible officer of the supplier's, contractor's or subcontractor's organisation acceptable to the contract authority.

Part 1 – To be completed by applicant (Applicant includes, but is not limited to supplier, contractor and in-service provider)

*Denotes mandatory fields

*a. Name and address of applicant	*b. Contract or order no.	
*c. Main item or assembly	d. Component	
*e. Relevant documentation (include issue no. and date)	f. Specification no.	g. Part identification no.
h. Batch lot or reference	*i. Period or quantity involved	

*j. Description of deviation (including supporting data – attach additional sheets if necessary). Refer to note 1.

*k. Effect of deviation

Enter 'S' = Satisfactory, 'A' = Adversely affected, 'N' = Not known
If 'A' or 'N' is used, supporting documentation is to be attached.

	Interchangeability		Function
	Strength		Safety
	Quality control		Life
	Maintainability		Weight
	Reliability		Performance
	Environmental compliance		

Price variation
☐ Yes   ☐ No
☐ If 'Yes', Increase   ☐ Decrease
If 'Yes', supporting information is to be attached.

Delivery variation
☐ Yes   ☐ No
☐ If 'Yes', Longer   ☐ Shorter
If 'Yes', supporting information is to be attached.

Are there other critical factors affected which are not listed?   ☐ Yes   ☐ No
Is 'Yes', attach details

*l. Is permanent design change proposed?

☐ Yes   ☐ No   If 'No', box n. is to be completed and box o. is to be completed where applicable.

*m. Applicant's design department (if applicable, attach agreed conditions)

Signature – (Design department)	Printed name	Appointment	Phone number	Date

n. Proposed corrective action for deviation application *(Attach additional sheets where necessary)*

o. Proposed action to prevent recurrence *(Attach additional sheets where necessary)*

*p. Agreed by applicant (All details are correct, and design department signatory is authorised)

Signature – Application	Printed name	Appointment	Phone number	Date

● When Part 1 is complete, forward both pages of the form and all attachments to Defence Quality Assurance Representative.

Applicant's reference no.
QAR authority reference no.

Part 2 – To be completed by the Defence Quality Assurance Representative

a. General comments (including, based on objective evidence, that effects identified in Part 1 k. are verified)

b. Application referred to	c. 'For information' copy provided to CA
User authority (in-service applications) ☐ and/or ☐ Design acceptance authority	☐ Contract authority

d. QAR (Sections a. and b. above have been completed where applicable and
    details supplied in Part 1 are assessed as being complete and accurate)

Signature	Printed name	Appointment	Phone number	Date

Part 3 – To be completed by the User Authority *(Where applicable to in-service requirements)*

a. Application is

☐ Endorsed   Is restriction attached?   ☐ Yes *(Attach response)*   ☐ No   ☐ Not endorsed *(Attach reasons)*

b. User representative

Signature	Printed name	Appointment	Phone number	Date

Part 4 – To be completed by the Design Acceptance Authority or delegate

a. Category	Category guidelines	
	Critical	Mission critical and/or threat to life
	Major	Significant issues that do not affect the mission or pose no threat to life.
	Minor	Lesser issues affecting configuration.

b. Need for permanent design change is agreed	c. If 'No', return to agreed specification by
☐ Yes ☐ No	Date

d. Engineering Change Number (ECN) and Comments

e. Technical endorsement   ☐ Endorsed   ☐ Not endorsed

Signature	Printed name	Appointment	Phone number	Date

Part 5 – Approval — To be completed by the Contract Authority or representative

Contract authority or representative
(Cost and schedule implications have been accessed)   (CCP and/or ECP action has been initiated)

Application is: ☐ Approved ☐ Not Approved *(Attach reasons)*	☐ CCP	☐ ECP	☐ N/A

Signature	Printed name	Appointment	Phone number	Date

Part 6 – To be completed by the Defence Quality Assurance Representative

Application close out (The details on this form have been recorded and copies dispatched as per distribution list)

Signature	Printed name	Appointment	Phone number	Date

DATA ITEM DESCRIPTION

1.   **DID NUMBER:**   **DID-PM-MGT-EVMP-V5.3**

2.   **TITLE:**   **EARNED VALUE MANAGEMENT PLAN**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The Earned Value Management Plan (EVMP) documents the Contractor's plans, methodologies and processes for meeting the Earned Value Management System (EVMS) requirements of the Contract, including the structure, implementation and ongoing maintenance of the Contractor's EVMS.

3.2   The Contractor uses the EVMP to:

      a.   define, manage and monitor the EVMS program, including the implementation of the required EVMS;

      b.   ensure that those parties (including Subcontractors) who are undertaking EVMS activities understand their respective responsibilities, the processes to be used, and the time-frames involved; and

      c.   advise the Commonwealth of:

          (i)   the EVMS that will be implemented to meet the Contract requirements;

          (ii)   the processes that the Contractor intends to use to implement the EVMS;

          (iii)   the Contractor's internal system assurance strategy that will be implemented to ensure that the accepted EVMS remains compliant;

          (iv)   the processes for Earned Value Performance Reporting and conducting EVM reviews; and

          (v)   the methodology for integrating Subcontractor performance management into the Contractor's EVMS, including identifying the Subcontractors required to implement EVM and describing the associated Subcontractor EVMS.

3.3   The Commonwealth uses the EVMP to:

      a.   assess the ability of the Contractor's proposed EVMS to satisfy the requirements of the Contract;

      b.   understand how the EVMS is designed to function;

      c.   gain the confidence that the Contractor understands the scope of work and risks associated with implementing a compliant EVMS;

      d.   gain the confidence that the Contractor will have the controls in place to maintain a compliant system; and

      e.   form a basis for assessing the ongoing compliance of the EVMS.

Note: The EVM Implementation Workshop, held in accordance with the Approved CSUP, is used to discuss the tendered strategy and the Contractor's proposed EVMS, the implementation process, the system assurance strategy, and EV performance reporting, as inputs to the EVMP.

4.   **INTER-RELATIONSHIPS**

4.1   The EVMP is subordinate to the Project Management Plan (PMP).

4.2   The EVMP inter-relates with the following data items, where these data items are required under the Contract:

      a.   Contract Start Up Plan (CSUP);

      b.   Quality Plan (QP);

      c.   Measurement Plan (MEASP);

      d.   Contract Work Breakdown Structure (CWBS);

    e.   Contract Master Schedule (CMS); and

    f.   Earned Value Performance Report (EVPR).

5. APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

AS 4817:2019	*Earned value management in project and programme management*
CASG Manual (PM) 006	*Defence Supplement to the Australian Standard for Earned Value Management, AS 4817*
CASG-2-Instruction (PM) 003	*Integrated Baseline Review and Earned Value Management System Review*

6. PREPARATION INSTRUCTIONS

6.1 Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   Where information required by this data item is duplicated in other documents, this data item may incorporate, by express reference, the information contained in those documents. The reference to the information shall clearly and specifically identify the referenced information. The context in which the referenced information is used shall be readily apparent from the text in this data item. Where the referenced information refers to lower-level EVMS procedures, these procedures shall be included as attachments to the EVMP.

6.1.3   The content requirements of this data item are non-exclusive and shall not be construed so as to constrain or otherwise restrict the inclusion of any content required to effectively develop the plan or implement the EVMS requirements of the Contract.

6.1.4   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2 Specific Content

6.2.1 General

6.2.1.1   The EVMP shall:

    a.   address all of the EVMS requirements of the Contract;

    b.   reflect the nature and risk profile of the work to be performed under the Contract; and

    c.   define the relationships and interfaces between the EVMP and other data items required under the Contract.

6.2.1.2   The EVMP shall describe the objectives, scope, constraints, and assumptions associated with the Contractor's EVMS program of activities. Any risks associated with the Contractor's EVMS program shall be documented in the Risk Register; however, the EVMP shall describe the risk management strategies associated with any global, EVMS related risks.

6.2.2 Earned Value Management System Overview

6.2.2.1   The EVMP shall provide a description of the Contractor's EVMS for meeting the requirements of the Contract, including:

    a.   as an explanation of existing capability on which to develop the EVMS, a summary of previous experience in applying an EVMS to manage contracts, including:

        (i)   contract title and description;

        (ii)   contract type and value;

        (iii)   EVMS standards applied; and

        (iv)   any formal recognition of the applied EVMS;

b.   an overview of the EVMS, written around the 11-step earned value performance measurement process defined in AS 4817:2019, as amended by CASG Manual (PM) 006 and the Contract, including:

        (i)   any deviations from AS 4817:2019 and CASG Manual (PM) 006;

        (ii)   the procedures to be employed; and

        (iii)   the interfaces between the various information management systems that will be employed to meet the EVMS requirements of the Contract (eg accounting, material handling, scheduling, EVMS data accumulation and reporting systems);

c.   identification of the EVMS-related organisational structure, including all key EVMS personnel (eg, Project Manager, Control Account Managers (CAMs), Functional Managers, Project Scheduler and EVMS controller);

d.   how the Contractor will manage Subcontractor performance, including:

        (i)   if applicable, the identification of any Subcontractors that are EVM Flowdown Subcontractors under the Subcontractor Management clause of the SOW, including the rationale for their selection;

        (ii)   for each EVM Flowdown Subcontractor, provide an overview of the Subcontractor EVMS to be established, including any tailoring of the EVM standards applicable to the Contract, the timeframes for establishing the EVMS, and the timeframes for conducting each of the Subcontractor EVMS reviews;

        (iii)   the integration of Subcontractor performance data into the Contractor's EVMS performance reporting, including describing the different approaches that may be used for EVM Flowdown Subcontractors versus other Subcontractors; and

e.   the interfaces between the EVMS program and the measurement program, if a measurement program is required under the Contract; and

f.   when the Contractor proposes that the EVMS under the Contract will be used to forecast, monitor and report Australian Contract Expenditure (ACE) and Imported Contract Expenditure (ICE) as part of the Australian Industry Capability (AIC) program, describe how the EVMS has been adapted to support these activities.

6.2.3   Implementation Process

6.2.3.1   The EVMP shall describe the processes that the Contractor intends to use to implement the EVMS described under clause 6.2.2, including:

a.   a description of the areas of non-compliance between the Contractor's current project management system and the EVMS described under clause 6.2.2;

b.   the corrective actions to be undertaken to rectify the areas of non-compliance, including the timeframes involved;

c.   identification of any new or modified procedures, an overview of the scope of the new or modified procedures, and the responsibilities and timeframes for developing and approving these procedures;

d.   identification of training requirements and an overview of the training plan;

e.   identification of areas of risk and proposed mitigation strategy; and

f.   a summary of the implementation schedule, with the full implementation schedule being provided as part of either:

        (i)   the CMS; or

        (ii)   the schedule attached to the CSUP,

    whichever is the governing schedule for the Contract at the time that the schedule is delivered to the Commonwealth.

6.2.4   System Assurance Strategy

6.2.4.1   The EVMP shall describe the Contractor's EVMS quality assurance strategy to ensure that the EVMS remains compliant with the requirements of the Contract, including:

      a.   the criteria that the Contractor uses to determine that a System Assurance Review is required;

      b.   the methodologies to be used to conduct the System Assurance Review;

      c.   the company personnel involved in the reviews/activities;

      d.   the proposed Subcontractor System Assurance Reviews; and

      e.   details of any continuous improvement process the company utilises.

6.2.5   Earned Value Performance Reporting

Note: The reporting levels specified should provide the Commonwealth with visibility of CWBS elements in which significant risks reside (eg, software development).

6.2.5.1   The EVMP shall describe the EVMS performance reporting processes used by the Contractor, including:

      a.   the reporting levels, structures and variance thresholds for the provision of EVPRs, including:

          (i)   the reporting levels by CWBS element for EVPR Format 1 (clause 3.2.5.2.3 of the SOW);

          (ii)   the functional reporting structure for EVPR Format 2;

          (iii)   the specified periods for EVPR Formats 3 and 4;

          (iv)   the labour structure for EVPR Format 4; and

          (v)   the variance thresholds that, when exceeded, require the provision of EVPR Format 5 (clause 3.2.5.2.5 of the SOW);

      b.   any variations to the reporting levels and variance thresholds as the Contract progresses or the risk profile changes;

      c.   any variations to the standard EVPR reporting formats to facilitate reporting of ACE and ICE under the AIC program; and

      d.   the electronic formats for the provision of EVMS data to the Commonwealth to facilitate data transfer and analysis.

Note: Acceptable file types, which are compatible with the Commonwealth's analysis software and reporting tools, include X12, XML and Microsoft Excel©.

6.2.6   Conduct of Reviews

6.2.6.1   The EVMP shall describe the facilities and assistance that will be provided to the Commonwealth for the conduct of Integrated Baseline Reviews (IBRs), the EVMS Review, and the System Assurance Review, including:

      a.   the provision of appropriate documentation to the Commonwealth review team for review prior to the start of each of these reviews;

      b.   the provision of working space and support for the Commonwealth review team;

      c.   the arrangements for interviews with CAMs and other project management staff to ensure these personnel are available as planned; and

      d.   the access provisions to documentation such as EVMS process/procedures, schedules, and CAM documentation.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-PM-MGT-PIP-V5.3

2.   TITLE: PROCESS IMPROVEMENT PLAN

3.   DESCRIPTION AND INTENDED USE

3.1   The purpose of the Process Improvement Plan (PIP) is to document the process-improvement activities, resources, and required outcomes for process areas identified as requiring improvement.

3.2   The Contractor will use this document to control and monitor the process-improvement activities to be performed.

3.3   The Commonwealth will use this document to monitor and assess the progress of the process-improvement activities of the Contractor.

4.   INTER-RELATIONSHIPS

4.1   The PIP is subordinate to the following data items, where these data items are required under the Contract:

        a.   Project Management Plan (PMP);

        b.   Quality Plan (QP);

        c.   Systems Engineering Management Plan (SEMP);

        d.   Integrated Support Plan (ISP); and

        e.   Support Services Management Plan (SSMP).

4.2   The PIP inter-relates with the following data items, where these data items are required under the Contract:

        a.   Software Management Plan (SWMP); and

        b.   Software Support Plan (SWSP).

5.   APPLICABLE DOCUMENTS

5.1   The following document forms a part of this DID to the extent specified herein:

        Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   Process Improvement Goals

6.2.1.1   The PIP shall identify the goals of the process-improvement program addressed by this plan.

6.2.2   Success Criteria

6.2.2.1   The PIP shall describe how satisfaction of the process-improvement goals will be assessed.

6.2.3   Assumptions and Risks

6.2.3.1   The PIP shall identify critical assumptions (eg, sponsorship, workload, resource availability) and describe how each affects the plan. It shall identify and discuss any risks including those associated with the assumptions. It shall identify any barriers, including non-technological barriers such as organisational culture, which must be addressed as part of the improvement program. It shall describe the strategies to mitigate identified risks including the criteria for initiating action for each risk.

6.2.4   Detailed Description

6.2.4.1   The PIP shall describe the specific tasks to be performed, including the identification of inputs and outputs for each task.

6.2.5   Resources and Responsibility for Process Improvement

6.2.5.1   The PIP shall identify and describe the resources required to perform the activities. Resources include personnel, tools, facilities and other items required to facilitate the improvement activities. The PIP shall also identify who is responsible for the activities, resources and outputs required of this plan.

6.2.6   Interfaces and Dependencies

6.2.6.1   The PIP shall describe the organisational interfaces between the group performing process-improvement activities and the remainder of the Contractor's organisation and any other parties involved or affected by the activities of this plan. It should describe how the process-improvement program for the Contract relates to any other process-improvement initiatives currently underway or planned within the organisation.

6.2.7   Schedule

6.2.7.1   The PIP shall provide a detailed calendar-based schedule for the activities of this plan. Key accomplishments and outputs shall be indicated as milestones and tracked against original estimates.

6.2.8   Reporting

6.2.8.1   The PIP shall describe how progress in process improvement is to be reported to all stakeholders, including the Commonwealth. It shall also describe how the Contractor management team will monitor the plan and how deviations from the plan will be recognised and acted upon.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-PM-MGT-PMP-V5.3

2.   TITLE: PROJECT MANAGEMENT PLAN

3.   DESCRIPTION AND INTENDED USE

3.1   The Project Management Plan (PMP) provides an overview of the different project processes and how they fit together to form a totally integrated management system for the Contract. It should provide an overview and show how all of the detailed processes and plans fit together.

3.2   The Contractor uses the PMP, including or supplemented by subordinate plans, to provide direction and guidance to the Contractor's management team responsible for coordinating and conducting the work required under the Contract.

3.3   The Commonwealth uses the PMP to:

a.   gain visibility into the Contractor's planning;

b.   understand and evaluate the Contractor's approach to managing the scope of work associated with the Contract; and

c.   provide input into the Commonwealth's planning.

4.   INTER-RELATIONSHIPS

4.1   The PMP is the primary plan for the Contract. All other plans related to the Contract fit beneath the umbrella of the PMP.

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

LCAM Volume 2	Logistics Compliance and Assurance Manual, Volume 2, Stocktaking
DSPF	Defence Security Principles Framework
ISM	Information Security Manual
AS/NZS ISO 31000:2018	Risk Management—Principles and guidelines

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The PMP shall be a stand-alone document that provides sufficient information to allow the reader to understand, without referring to other documents, how the scope of work associated with the Contract will be managed. It is not acceptable to simply reference a document, procedure or standard, without providing an overview of the relevant information within the PMP.

6.1.3   The PMP shall be the master planning document, integrating, summarising and referencing other plans and schedules required by this DID and elsewhere in the SOW.

6.1.4   The PMP need not be developed as one document. It may be divided into volumes, sections and/or sub-plans provided that the head document links all sub-documents together as a cohesive whole.

6.1.5   When the Contract has specified delivery of another data item that contains aspects of the required information, the PMP shall summarise these aspects and refer to the other data item.

6.1.6   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   Objectives

6.2.1.1   The PMP shall describe the objectives of the Contract, showing how these relate to the success of the project overall. Objectives may be related to capability, cost, schedule, Australian Industry Capability, minimisation of disputation, avoidance of conflict, the environment, public good, safety, law, and other outcomes as appropriate.

6.2.2   System Overview

6.2.2.1   The PMP shall:

   a.   give a brief overview of the Materiel System being developed and its purpose;

   b.   state the operational capability that this Materiel System will be delivering;

   c.   identify the key functions of the Mission System;

   d.   if applicable, describe the Mission System in the context of higher-level systems;

   e.   identify major subsystems of the Mission System; and

   f.   identify major interfaces.

6.2.3   Scope

6.2.3.1   The PMP shall clearly identify:

   a.   the scope of work associated with the Contract, including the scope undertaken by the Contractor and Approved Subcontractors; and

   b.   areas that are not within scope, if there is a possibility of the reader misinterpreting the scope (eg, interfaces with existing infrastructure, other projects or systems are typical areas that may be misinterpreted).

6.2.4   Organisation

6.2.4.1   The PMP shall describe the organisational structure responsible for managing and performing the scope of work associated with the Contract, including:

   a.   the Contractor's company organisation structure;

   b.   the Contractor's project-management organisation;

   c.   the Contractor's contractual relationship with Approved Subcontractors; and

   d.   each Approved Subcontractor's organisational structure to the extent applicable to the scope of their Subcontract.

6.2.5   Personnel Management

6.2.6   Team and Sub-Team Composition and Purpose

6.2.6.1   The PMP shall identify, and describe the make-up and purpose of, each team to be employed in the performance of the Contract *(eg, Integrated Product Teams, the Systems Engineering team, Integrated Logistic Support (ILS) team, and financial team)*.

6.2.7   Structure of Contractor Plans

6.2.7.1   The PMP shall contain an indentured list of the plans to be used by the Contractor in the execution of the Contract, showing the hierarchical relationship of the plans.

Note: The following structure is an example of a plan hierarchy. Italicised text indicates sub-plans that may be incorporated within the next higher-level plan. Regular text indicates stand-alone sub-plans. If a plan contains stand-alone sub-plans, it is to reference all such sub-plans at the next lower level. The hierarchy of plans is to be tailored to the needs of the Contract.

   Project Management Plan

   Business Resource Plan

   Subcontractor Management Plan

Partnering Plan

Communications Plan

Australian Industry Capability Plan

Systems Engineering Management Plan

Integrated Support Plan

6.2.8 Contract Work Breakdown Structure

6.2.8.1 The PMP shall contain the Contract Work Breakdown Structure (CWBS) as an indented list to level 4.

6.2.9 Contract Master Schedule

6.2.9.1 The PMP shall provide an overview of the Contract Master Schedule (CMS), including the critical path, to the same level of detail as required for the CWBS in clause 6.2.8.

6.2.10 Personnel Management

6.2.10.1 The PMP shall describe the Contractor's staffing strategy for the Contract, including the Contractor's approach to recruiting and retaining staff.

6.2.10.2 The PMP shall contain an aggregate, labour-category-based, time-phased plan for the use of the Contractor's human resources in the performance of the Contract, which:

a.   identifies the staffing requirements on a month-by-month basis;

b.   is consistent with the identified work and the CMS identified in clause 6.2.9; and

c.   breaks the staffing requirements into the labour categories identified in Attachment B.

6.2.10.3 The PMP shall describe the Contractor's methodology for identifying Key Staff Positions and for managing Key Persons, including:

a.   the identification of Key Staff Positions within the Contractor's and Approved Subcontractor's organisations *(eg, typically Project Manager, SE Manager, Software Development Manager, and ILS Manager and key technical personnel, as applicable to the Contract scope)*;

b.   the definition of the person/position specifications, or responsibilities and authorities for each Key Staff Position and the skill sets needed to fill that position *(eg, SE Manager with 10 years of experience in managing large, complex, software-intensive projects)*; and

c.   the identification of relevant background skills and experience of each Key Person.

6.2.11 Business Resource Planning

6.2.11.1 The PMP shall demonstrate that company resources are available to meet the current and future obligations of this Contract. In particular, the PMP shall address:

a.   the Contractor's obligations in regard to current and future contracts / work;

b.   the Contractor's resource needs in relation to current and envisaged contracts / work, such as:

(i)   skilled personnel / human capital;

(ii)   financial resources;

(iii) physical infrastructure, including equipment, facilities and other resources;

(iv)   other organisational resources; and

(v)   Subcontractor relationships and other supply arrangements;

c.   details of the company's capabilities to satisfactorily discharge its responsibilities under the Contract in relation to the use of the identified resources; and

d.   arrangements for reprioritising resources across the company's span of commitment, including the criteria to determine when reprioritisation is required.

6.2.12   Planning and Control

6.2.12.1   The PMP shall provide an overview of the processes used by the Contractor to ensure the integration of technical, cost and schedule planning and control for the management of the work associated with the Contract.

6.2.12.2   The PMP shall identify the tools to be used in support of Contract and project management, and shall describe the planned purpose and method of usage of each tool. Example of tools that may be addressed are management information systems, databases, spreadsheets, cost estimating tools, scheduling tools and decision analysis tools.

6.2.13   Performance Management

6.2.13.1   The PMP shall describe how the Contractor will monitor and manage the performance of the work under the Contract, including:

a.   the identification, recording and analysis of performance data;

b.   the collection of data relevant to any Key Performance Indicators (KPIs);

c.   the data-management systems to be used to collect, document, disseminate, coordinate, control and share performance data;

d.   the review of performance data to ensure that it is current, accurate and applicable;

e.   the use of the performance data to ensure that the Contract performance requirements are being achieved and improved where necessary; and

f.   the integration of the performance-management activities with the measurement and quality-management programs.

6.2.14   Earned Value Management

6.2.14.1   The PMP shall provide an overview of the Earned Value Management System arrangements for the Contract, if applicable, referring to the Earned Value Management Plan if such a plan is required under the Contract.

6.2.15   Engineering Program

6.2.15.1   The PMP shall provide an overview of the engineering program for the Contract, referring to the engineering plan(s) as appropriate.

6.2.16   Integrated Logistics Support Program

6.2.16.1   The PMP shall provide an overview of the ILS program for the Contract, referring to the ILS plan(s) as appropriate.

6.2.17   Configuration Management

6.2.17.1   The PMP shall provide an overview of the Configuration Management (CM) arrangements for the Contract, referring to the governing plan for CM (eg, Configuration Management Plan) as appropriate.

6.2.18   Quality Management

6.2.18.1   The PMP shall provide an overview of the Quality Management program for the Contract, referring to the Quality Plan as appropriate.

6.2.19   Risk Management

6.2.19.1   The PMP shall describe the Contractor's processes and tools used for managing risks under the Contract, in a manner consistent with AS/NZS ISO 31000:2018.

6.2.19.2   The PMP shall include a description of the following:

a.   the risk management organisation, including the allocation of risk management responsibilities for the project management, systems engineering, ILS and Verification and Validation programs;

Note: A rigorous risk identification process is considered by the Commonwealth to be essential to the management of risk.

b.   procedures for identifying and capturing risks;

c.   procedures for analysing risks;

d.   procedures for assessing and evaluating risks;

e.   procedures for treating risks, including:

(i)   avoiding the risk;

(ii)   removing the risk source;

(iii)   reducing the likelihood of the risk;

(iv)   reducing the consequences of the risk;

(v)   transferring the risk to a party that is better able to manage the risk; and

(vi)   retaining the risk;

f.   procedures for reporting risks;

g.   procedures for monitoring and reviewing risks;

h.   the processes for integrating the risk management activities into work planning and control (eg, Earned Value Management, etc); and

i.   if the Contractor is required to provide a Modern Slavery Risk Management Plan to the Commonwealth, the details of that plan required by clause 12.10 of the COC.

6.2.19.3   The PMP shall describe the procedures for the management of risks to Work Health and Safety (WHS), which shall, to the extent that the WHS Legislation applies to the work under the Contract, be consistent with the requirements of the WHS Legislation.

6.2.20   **Risk Register**

6.2.20.1   The PMP shall describe the Risk Register used by the Contractor for recording each risk, its attributes, evaluation and treatments.

6.2.20.2   The Risk Register shall be a separate entity from the PMP (due to the dynamic nature of the content of the Risk Register).

6.2.20.3   The Risk Register shall include, in a separate record for each risk:

a.   the CWBS element number;

b.   a risk identification number;

c.   a brief outline of the risk;

d.   the risk priority;

e.   the source of risk (eg, whether the risk stems from the Commonwealth or from the Contractor (including Subcontractors));

f.   the likelihood of the risk event;

g.   the consequence of the risk event in terms of Life Cycle Cost (LCC), Contract cost, Contract schedule, environmental, safety, and/or the performance or suitability of the Supplies;

h.   details of the individual responsible for eliminating or treating the risk;

i.   the risk-treatment option(s) (eg, eliminate, avoid, remove the source, reduce the likelihood, reduce the consequence, transfer, or retain); and

j.   actions taken to reduce or eliminate the risk (including eliminating the source of the risk), which for WHS-related risks demonstrates that the risk has been reduced so far as is reasonably practicable.

6.2.20.4   For risks that are to be treated, the Risk Register shall include:

a.   the risk treatment plan;

b.   the work package identifier, budget and schedule allocated to the risk treatment plan; and

c.   progress against the risk treatment plan.

6.2.20.5   The Risk Register shall also include:

    a.   the total cost exposure caused by all risks to the Contract;

    b.   the budget reserve remaining for cost risks;

    c.   the total schedule exposure caused by all risks to the Contract; and

    d.   the total schedule reserve remaining.

6.2.21   **Issue Management**

6.2.21.1   The PMP shall describe the Contractor's processes and tools used for managing Issues for the Contract.

6.2.22   **Issue Register**

6.2.22.1   The PMP shall describe the Issue Register used by the Contractor for recording Issues and the associated action(s) for addressing each Issue.

6.2.22.2   The Issue Register shall be a separate entity from the PMP (due to the dynamic nature of the content of the Issue Register).

6.2.22.3   For each Issue, the Issue Register shall include:

    a.   an account of the Issue;

    b.   the effect of the Issue on the Contract or the Supplies;

    c.   the proposed action to address the Issue, including the identification of the responsible individual for addressing the Issue and the timeframes involved;

    d.   any requested Commonwealth Representative actions to address the Issue;

    e.   the effect on the Contract and the Supplies if the proposed actions are put into effect; and

    f.   the consequences for the Contract and the Supplies if the proposed actions are not taken or fail.

6.2.23   **Customer Expectation Management**

6.2.23.1   The PMP shall provide an overview of the processes to be used by the Contractor for, and the responsibilities associated with, the management of the following types of issues:

    a.   alerting the Commonwealth Representative of any disagreement occurring across the customer organisation; and

    b.   ensuring customer expectations are consistent with the budget and Contract.

6.2.24   **Subcontract Management**

6.2.24.1   The PMP shall provide an overview describing how the Contractor intends to manage Subcontractors, including:

    a.   the communications, meeting and review plan for each Approved Subcontractor;

    b.   the method for ensuring that each Approved Subcontractor has an integrated technical, cost and schedule control mechanism in place;

    c.   the method for ensuring that each Approved Subcontractor is collecting and analysing relevant metrics to enable progress and performance to be tracked against applicable schedules and plans; and

    d.   the method for ensuring that each Approved Subcontractor is managing its own Subcontractors.

6.2.25   **Security Management**

6.2.25.1   The PMP shall provide an overview of the processes to be used by the Contractor to satisfy the security requirements of the Contract (other than system security for the Mission System and Support System), including applicable requirements of the Defence Security

Principles Framework (DSPF) and the Information Security Manual (ISM), and referring to any separate Security Management Plan if such a plan exists.

6.2.26   Partnering

6.2.26.1   If the Contractor and the Commonwealth should agree to enter into a partnering agreement, then the PMP shall include the Partnering Plan.

6.2.27   Communications Management

6.2.27.1   The PMP shall describe the processes and information flows associated with Contract communications, including:

a.   within the Contractor's organisation;

b.   between the Contractor's team and the Commonwealth's team;

c.   between the Contractor's team and other stakeholders; and

d.   where appropriate and agreed, between other stakeholders.

6.2.27.2   The PMP shall identify the reports, including any non-routine reports, to be provided to the Commonwealth to meet the Contract requirements, including the identification of any linkages between the reports and any Contract meetings that require those reports.

6.2.27.3   The PMP shall provide an overview of any data-delivery systems (eg, the Data Management System (DMS)) implemented under the Contract.

6.2.27.4   The PMP shall detail the type, frequency and subject coverage of the various routine Contract-related meetings to be held within the Contractor's organisation and between the Contractor and other relevant stakeholders, including the Commonwealth.

6.2.28   Commonwealth Resources

6.2.28.1   The PMP shall describe the Contractor's expectations with respect to Commonwealth resources to enable the Contractor to meet its obligations under the Contract, including an indication of types, quantities, timescales (such as points in time and/or events (eg, Mandated System Reviews)) and where the resource requirements will be detailed.

6.2.28.2   The PMP shall describe the arrangements for the collocation of any Resident Personnel, and/or Commonwealth persons involved in testing and/or training, at the Contractor's premises, as required under the Contract.

6.2.29   Transition

6.2.29.1   The PMP shall provide an overview of the processes to be used by the Contractor to meet the Transition requirements of the Contract, referring to any Contractor Transition Plan required under the Contract. The description of Transition shall include the linkages with the phase-in and ramp-up of Commonwealth and contracted in-service support services, including services that are associated with any linked Contract (Support).

6.2.30   Government Furnished Material, Facilities and Services

6.2.30.1   The PMP shall describe the Contractor's arrangements for the receipt, custody, storage, care, maintenance and use, as applicable, of any Government Furnished Material, Government Furnished Facilities and Government Furnished Services.

6.2.31   Technical Data and Software Rights Management

6.2.31.1   The PMP shall describe the arrangements for managing the Technical Data and Software rights (including Intellectual Property (IP) rights) under the Contract, including:

a.   the identification of the responsible manager(s) and their responsibilities;

b.   the processes for obtaining and providing, as applicable, the Technical Data and Software rights required under the Contract (including the rights required for the through life operation, support and disposal of the Materiel System);

c.   the processes for managing the Contractor's and Subcontractors' use of sublicensed Technical Data and Software, and to ensure compliance with the rights and restrictions in the Contract and applicable licences; and

d.   the processes for maintaining the Technical Data and Software Rights Schedule, related Attachments, and data items such as the Master Technical Data Index and the Software List.

6.2.32   Health and Safety Management

6.2.32.1   The PMP shall describe (including by reference to applicable plans, management systems and procedures) how the Contractor will ensure that the work performed under the Contract will meet WHS requirements, as identified in the Contract and as required by relevant legislation and regulations (including the WHS Legislation).

6.2.33   Environmental Management

6.2.33.1   The PMP shall describe how the Contractor will ensure that the performance of work under the Contract will meet Defence environmental requirements, as identified in the Contract, relevant legislation and regulations.

6.2.34   Life Cycle Cost Management

6.2.34.1   The PMP shall describe how the Contractor will manage the LCC program, including:

a.   the processes, procedures and tools to be used to undertake LCC activities;

b.   the methodology for undertaking the development of the LCC model(s);

c.   the processes and procedures for collecting and recording LCC data;

d.   the processes and procedures for identifying and analysing LCC drivers;

e.   the strategy and methodology for using the LCC model to analyse the collected LCC data, including performing sensitivity and trade-off analyses;

f.   the strategy, methodology and assumptions associated with the modelling of Software life-cycle costs; and

g.   the strategy and methodology for demonstrating to the Commonwealth, at each Mandated System Review, that the Contractor's developmental activities will result in a Mission System and Support System solution that minimises LCC while meeting the other requirements of the Contract.

6.2.35   Commonwealth Assets Stocktaking Plan

6.2.35.1   The PMP shall contain a Commonwealth Assets Stocktaking Plan (CASP), which shall describe the stocktaking program to be used by the Contractor to account for Contractor Managed Commonwealth Assets (CMCA), including inventory holdings.

6.2.35.2   The CASP shall include:

a.   the strategy, processes, procedures, systems and tools for:

(i)   accounting for CMCA, including physical counting, measuring, and weighing, as applicable to the different types of CMCA; and

(ii)   reporting the results from the stocktake of CMCA;

b.   the frequency with which stocktaking will be carried out in respect of the different types of CMCA and the applicable stocktaking regime as detailed in the LCAM Volume 2; and

c.   the Contractor's regime for the investigation of stocktake discrepancies.

6.2.35.3   The CASP shall describe the Assets Register(s) used by the Contractor for recording CMCA.

6.2.35.4   The Assets Register(s) shall be separate from the CASP (due to the dynamic nature of the content of the Assets Register(s)).

6.2.35.5   Without limiting the content of the CASP, the Assets Register(s) shall:

a.   identify all CMCA;

b.   identify the locations and/or accounts to be counted, or otherwise measured, during stocktakes and other assurance checks; and

      c.   outline the proposed start and finish dates of stocktakes and other assurance checks.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-PM-MGT-QP-V5.3

2.   TITLE: QUALITY PLAN

3.   DESCRIPTION AND INTENDED USE

3.1   The Quality Plan (QP) describes the Contractor's strategy, methodology and processes for the management and control of Quality, commensurate with the nature and complexity of the requirements of the Contract, and the nominated Quality standards.

3.2   The Contractor uses the QP to:

a.   define, manage and monitor its activities for meeting the Quality requirements of the Contract; and

b.   ensure that those parties (including all Subcontractors) who are undertaking Quality-related activities understand their respective responsibilities, the processes to be used, and the time-frames involved.

3.3   The Commonwealth uses the QP to:

a.   understand and evaluate the way that the Contractor proposes to meet the Quality requirements of the Contract, including any applicable ADF regulatory / assurance framework requirements;

b.   assist with monitoring the performance of the Contract; and

c.   identify and understand the Contractor's expectations of the Commonwealth with respect to the Quality requirements of the Contract.

4.   INTER-RELATIONSHIPS

4.1   The QP is subordinate to the following data items, where these data items are required under the Contract:

a.   Project Management Plan (PMP); or

b.   Support Services Management Plan (SSMP).

4.2   The QP inter-relates with all other management plans required under the Contract.

5.   APPLICABLE DOCUMENTS

5.1   The Quality standards nominated in the Contract and the following documents form a part of this DID to the extent specified herein:

ISO 10005:2018	Quality Management – Guidelines for Quality Plans
HB 90.9-2000	Software Development – Guide to ISO 9001:2000
AS/NZS ISO/IEC/IEEE 12207:2019	Systems and Software Engineering - Software Life Cycle Processes

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The QP should be consistent with the guidelines given in ISO 10005:2018.

6.1.3   When the Contract has specified delivery of another data item that contains aspects of the required information, the QP shall summarise these aspects and refer to the other data item.

6.1.4   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   General

6.2.1.1   The QP shall describe how the Contractor's Quality Management System (QMS) will be applied to fulfil the specific requirements of the Contract and shall describe or provide specific reference to a list of procedures to be used including any new procedures to be developed.

6.2.1.2   The QP shall describe the Contractor's Audit and review activities to be performed during all phases of the Contract.

6.2.1.3   The planned Quality-related activities (eg, tests, walkthroughs, reviews, etc) to be conducted shall be included in the QP. Alternatively, specific reference to where such information is contained can be provided.

6.2.1.4   If Software development, modification or update is required under the Contract, the Software Quality aspects shall:

a.   be addressed in a Software quality plan, as an annex to the QP; and

b.   meet the requirements of AS/NZS ISO/IEC/IEEE 12207:2019 paragraph 6.3.

6.2.1.5   The QP shall reference any international, national or industry specific standards, codes of practice and conventions adopted by the Contractor for ensuring conformance of the Contract's deliverables with the specified requirements.

6.2.2   Quality Organisation

6.2.2.1   The QP shall describe the Quality Management organisation, key appointments and functional relationships for managing Quality.

6.2.2.2   The QP shall identify the senior manager who has responsibility for the executive control of the Contractor's QMS, as it applies to the Contract.

6.2.2.3   The QP shall identify the resources and the allocated responsibilities and authorities for the Audit and review activities to be performed during the period of the Contract.

6.2.3   Subcontractor Requirements

6.2.3.1   The QP shall identify:

a.   for each Approved Subcontractor, the scope of work to be undertaken and the system(s) in place to provide Quality Assurance of the work; and

b.   for all other Subcontractors, how Quality Assurance will be achieved for the goods and services that they provide.

6.2.3.2   The QP shall include the Contractor's planned Audit and review activities for each Approved Subcontractor and any additional processes, which may be implemented to ensure that the relevant requirements of the Contract are flowed down to Approved Subcontractors.

DATA ITEM DESCRIPTION

1.   **DID NUMBER: DID-PM-MGT-RP-V5.3**

2.   **TITLE: REMEDIATION PLAN**

3.   **DESCRIPTION AND INTENDED USE**

3.1   A Remediation Plan sets out the Contractor's strategy, methodology, activities, resources and timeframes to address the underlying causes of the actual or potential problems, failures or breaches that have led to the requirement for the Contractor to submit a Remediation Plan under the Contract. The Remediation Plan sets out the Contractor's plan to:

    a.   rectify or prevent (as applicable) the actual or potential problems, failures or breaches;

    b.   avoid or mitigate the impacts of the actual or potential problems, failures or breaches; and

    c.   ensure that the actual or potential problems, failures or breaches (or any similar or related problems, failures or breaches) do not occur again.

3.2   The Contractor uses the Remediation Plan to:

    a.   describe the arrangements for managing the remediation activities, including in relation to Subcontractors;

    b.   provide direction to the Contractor's management team responsible for achieving the required remediation outcomes, as set out in clause 3.1;

    c.   ensure that those parties who are undertaking remediation activities understand their responsibilities, the processes to be used, and the time-frames involved; and

    d.   provide assurance to the Commonwealth that the underlying causes of the problems, failures or breaches will be remediated while ensuring that the other requirements of the Contract will continue to be satisfied.

3.3   The Commonwealth uses the Remediation Plan to:

    a.   evaluate and gain assurance that the Contractor's Remediation Plan will achieve the required remediation outcomes, as set out in clause 3.1;

    b.   provide a basis for monitoring and assessing the Contractor's performance in executing the Remediation Plan; and

    c.   identify any requirements for Commonwealth involvement in the Contractor's Remediation Plan.

4.   **INTER-RELATIONSHIPS**

4.1   The Remediation Plan is subordinate to the following data items, where these data items are required under the Contract:

        Nil.

4.2   The Remediation Plan inter-relates with the following data items, where these data items are required under the Contract:

    a.   Contract Work Breakdown Structure (CWBS);

    b.   Contract Master Schedule (CMS);

    c.   Support Services Master Schedule (SSMS); and

    d.   any plan that is related to the subject matter of the Remediation Plan.

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.2   Specific Content

6.2.1   The Remediation Plan shall:

a.   describe the actual or potential problem, failure or breach that led to the requirement for submission of the Remediation Plan;

b.   describe the objectives of the Remediation Plan and the outcomes to be achieved in tangible, measurable terms and/or the exit criteria to be achieved (ie, in the context of the generic outcomes identified at clause 3.1), including identifying when these objectives and outcomes will be achieved;

c.   identify the position responsible for achieving the objectives and outcomes identified pursuant to paragraph b above, including the name of the person filling the identified position;

d.   set out the detailed steps that the Contractor will take to achieve the identified objectives and outcomes, including:

(i)   the dates by which they will be completed;

(ii)   any review points and/or decision points; and

(iii)   the locations where the steps will be undertaken;

e.   explain:

(i)   why each of the steps is necessary and how these steps will achieve the identified objectives and outcomes in the proposed timeframes;

(ii)   how the plan minimises the impact on existing Contract work (including schedule) and the Commonwealth; and

Note: Approval of the Remediation Plan does not grant relief for any contractual obligations in accordance with clause 4.4 of the COC.

(iii)   where the plan does have an impact on existing Contract work and/or the Commonwealth, why these impacts are unavoidable;

f.   if the actual or potential problem, failure or breach was identified or investigated by a Commonwealth or independent audit or other Commonwealth review activity (including as part of the Independent AIC Audit Program), address the recommendations from that audit or review activity, as notified by the Commonwealth Representative;

g.   identify any assumptions or risks associated with the plan, and how those assumptions will be managed and the risks mitigated;

h.   for each of the steps in the plan, identify:

(i)   the resources required, including the people involved (by name), describing the activities that each person will be undertaking and identifying whether or not these people are involved in other Contract work;

(ii)   any Subcontractors involved and describe the activities to be performed by these Subcontractors, including explaining how these activities will contribute to achieving the identified objectives and outcomes;

i.   identify any inputs required to be provided by the Commonwealth to implement the steps (which, for clarity, shall be minimised and not include any additional requirements for GFM, GFF or GFS);

j.   describe the reports that will be provided to the Commonwealth on the progress of the plan, which shall:

   (i)   be provided on a monthly basis;

   (ii)   identify the activities undertaken since the last report, the steps completed, any difficulties encountered, and the actions being taken to address the difficulties; and

   (iii) identify any envisaged changes to the Approved Remediation Plan and provide justification as to why these are considered necessary;

k.   if applicable, describe any ongoing monitoring that will be implemented after all of the steps in the Approved Remediation Plan have been completed to ensure that the situation, which has led to the requirement for the Contractor to submit a Remediation Plan, does not recur; and

l.   include any other information pertinent to the plan.

DATA ITEM DESCRIPTION

1.   **DID NUMBER:**   **DID-PM-MGT-SAC-V5.3**

2.   **TITLE:**   **SUPPLIES ACCEPTANCE CERTIFICATE**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The Supplies Acceptance Certificate (SAC) provides for formal Acceptance of deliverables without prejudice to any remedies that the Commonwealth may have under the Contract when the deliverables do not conform to the requirements, or do not comply with the terms of the Contract.

3.2   The Contractor uses the SAC to detail the type and quantities of products being delivered to the Commonwealth for Acceptance.

3.3   The Commonwealth uses the SAC for formally acknowledging and recording the Acceptance of products from the Contractor.

4.   **INTER-RELATIONSHIPS**

4.1   The SAC is subordinate to the following data items, where these data items are required under the Contract:

        Nil

5.   **APPLICABLE DOCUMENTS**

5.1   The following documents form a part of this DID to the extent specified herein:

        Nil

6.   **PREPARATION INSTRUCTIONS**

6.1   **Generic Format and Content**

6.1.1   The data item shall comply with the general format, content and preparation instructions required by the form at Annex A to this DID (or equivalent electronic form) and, as applicable, the SOW clause for 'Deliverable Data Items' or the CDRL clause entitled 'General Requirements for Data Items'.

6.2   **Specific Content**

6.2.1   **General Requirements**

6.2.1.1   A SAC is required to be submitted with all products submitted to the Commonwealth for Acceptance in accordance with the Contract.

6.2.2   **Specific Requirements**

6.2.2.1   Except as otherwise specified in the Contract, all SACs shall be prepared using a Department of Defence form, as per the example included at Annex A.

6.2.2.2   The SAC form submitted by the Contractor shall include sections 'a' to 'k' completed as applicable, and section 'l', 'Contractor's Certification', signed by an authorised signatory of the Contractor, prior to offering the supplies to the Commonwealth.

Note: If the Contractor has access to the Defence Protected Network, the Contractor should use the electronic form SG 001 available from the 'e-Forms' application (as updated from time to time). Alternatively, the embedded PDF version may be used instead of the form at Annex A.

SG001 SAC May 2020

Annex:

A.   Supplies Acceptance Certificate

Supplies Acceptance Certificate

a. Contractor's reference number			b. CAPO or purchase order number		c. Project or ordering authority		d. Invoice number	e. Receipt voucher number

f. From *(full name and address of contractor and ACN)*	**Packaging details**				k. To *(Full name and address of consignee)*
	g. Number	h. Type	i. Gross weight	j. Package markings	

CAPO or order item number. 1	Class 2	Identity. part, catalogue or other reference number 3	Description of Supplies *(Include batch number, lot or serial number, deviation number and remarks)* 4	Qty ordered 5	Previously accepted 6	Offered today 7	Accepted today 8	Total to date 9	Balance due 10

l. Contractor's certification	m. **Commonwealth's Acceptance**	n. **Commonwealth's Reference or file number**

l. Contractor's certification

The supplies detailed hereon and quantified in column 7 are hereby offered for Acceptance by the Commonwealth of Australia. It is hereby certified that the supplies conform in all respects of the conditions and requirements of Contract Number _____ (Amendment Number _____) *except as stated in the Attachment (delete words in italics if not applicable).* It is also certified that all other conditions and requirements of the Contract have been met in relation to the above - detailed Supplies.

m. **Commonwealth's Acceptance**

The Supplies detailed hereon and quantified in Column 8 have been Accepted without prejudice to the Commonwealth's remedies under the Contract in the event that the Supplies do not conform in all respects with the conditions and requirements of the Contract.

n. **Commonwealth's Reference or file number**

o. **Is CAPO or order complete?** ☐ Yes ☐ No

p. **Recommended Distribution**
   Original – To be forwarded with payment claim
One Copy – To be forwarded by Contractor with supplies
One Copy – To be retained by Commonwealth's authorised signatory
One Copy – To be forwarded to project or ordering authority
One Copy – To be retained by Contractor

Authorised signatory	Printed name	Authorised signatory	Printed name
Position held	Date	Appointment	Date

Supplies Acceptance Certificate

Explanation

The boxes and columns on the Supplies Acceptance Certificate form are to be completed as follows:

Box a	**Contractor's Reference Number**. Supplier's number to record an internal file / job number.		Box e	**Receipt voucher number**. For use by the receiving officer at the point of receipt.
Box b	**CAPO or purchase order number**. Relevant Contract / purchase order number.		Box f	**From**. The full name, address, and Australian Company Number (ACN) of the supplier, as shown in the Contract.
Box c	**Project or ordering authority**. The Defence authority that placed the order, also referred to as the procurement authority.		Boxes g to j	**Packaging details**. Enter relevant information.
Box d	**Invoice number**. The invoice number as supplied by the supplier, when applicable.		Box k	**To**. The address to which the supplies are to be delivered, as shown in the Contract.

Column 1	**CAPO/Order Item No**. The item number as listed in the contract.
Column 2	**Class**. The first four numbers of the NSN, or the Class number from the 'Classes of Supply' group for the item (see box at right).
Column 3	**Identity, part, catalogue or other reference number**. The remaining nine numbers of the NSN, and/or relevant manufacturer code and item information to identify the item ordered.
Column 4	**Description of Supplies**. A description of the item(s) as shown in the Contract. Reference is to be made to relevant details (ie, batch or lot numbers, serial numbers, and approved Application(s) for a Deviation (including variances, if applicable)).
Column 5	**Qty ordered**. The total number of items ordered under this contract item number.
Column 6	**Previously accepted**. The total number of items ordered under this contract item number, and identified in column 3, which have been Accepted prior to the raising of this SAC.
Column 7	**Offered today**. The number of items ordered under this contract item number, and identified in column 3, which are being submitted by the Contractor for Acceptance vide this SAC.
Column 8	**Accepted Today**. The number of items ordered under this contract item number, and identified in column 3, for which the accepting authority is satisfied, meet the requirements of the Contract and has agreed to Accept on this SAC.
Column 9	**Total to date**. The number of items ordered under this contract item number, and identified in column 3, which have previously been Accepted including the number Accepted vide this SAC.
Column 10	**Balance due**. The number of Items ordered under this contract item number, and identified in column 3, which are still outstanding.

Classes of Supply based on the NATO conventions (from Land Warfare Doctrine 4-1, Supply Support):

Class 1	**Subsistence Items**. Foodstuffs, combat rations and packaged water.
Class 2	**General Stores**. Clothing, tents, tarpaulins, minor equipment, stationery, administrative and housekeeping items.
Class 3	**Petrol, Oils and Lubricants**.
Class 4	**Construction Items**. Construction materials, engineer stores and defence stores.
Class 5	**Ammunition**. All types of ammunition and explosive ordnance.
Class 6	**Personal Demand Items**. Personal items and canteen stores.
Class 7	**Principal Items**. Major items of equipment such as vehicles and weapons, major assemblies and included accessories. Items usually have a serial number.
Class 8	**Medical and Dental Stores**. Pharmaceutical items, medical and dental equipment, and repair parts.
Class 9	**Repair Parts**. Repair parts for maintenance support.
Class 10	**Material Support to Non-military Programs**. Item to support non-government program such as a UN mission or for economic development. Items should be segregated where possible.

Box l	**Contractor's certification**. The supplier's authorised representative is required to complete this box, signifying that the Supplies meet the requirements of the Contract in all respects, with the exception of any listed approved production permits and/or concessions.		Box n	**Commonwealth's Reference or file number**. Reference to an official file or other document that can at a later date provide traceability of events.
Box m	**Commonwealth's Acceptance**. By signing this box the Accepting Authority provides legal Acceptance of the Supplies on behalf of the Commonwealth.		Box o	**Is this CAPO/Order complete?** Enter whether the contract is complete when the deliveries of Supplies listed on this SAC have been made.
			Box p	**Recommended Distribution**. Distribution of the completed SAC by the accepting authority, as required by the procurement authority.

Boxes and columns are not to be left blank on any line of entry on the form. Where it is not necessary to enter information N/A (Not Applicable) is to be inserted.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-PM-RVW-PACKAGE-V5.3

2.   TITLE: REVIEW PACKAGE

3.   DESCRIPTION AND INTENDED USE

3.1   The purpose of Review Package is to allow the Contractor and Commonwealth Representative to prepare for System Reviews in order to gain maximum value from the reviews.

3.2   The Contractor uses the Review Package to convey the set of information that supports the objectives of the review.

3.3   The Commonwealth uses the Review Package, along with other data items specifically identified in the CDRL, to assist with confirming that the System Review objectives have been met.

4.   INTER-RELATIONSHIPS

4.1   The Review Package is subordinate to the following data items, where these data items are required under the Contract:

    a.   System Review Plan (SRP);

    b.   Quality Plan (QP); and

    c.   any other plan that provides details of System Review activities under the Contract.

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

    Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items' or as otherwise Approved by the Commonwealth Representative.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   The Review Package shall include information to be reviewed and discussed at the specific System Review, including:

    a.   documentation that is necessary to show that the objectives of the System Review have been satisfied;

    b.   presentation material;

    c.   all relevant documents not previously delivered and needed to meet the objectives of the System Review;

    d.   status of action items from previous System Reviews;

    e.   where applicable to the System Review, status of measurement data (eg, design maturity metrics and Technical Performance Measures); and

    f.   where applicable to the System Review, current configuration status along with any identified discrepancies in Configuration Baselines.

DATA ITEM DESCRIPTION

1. **DID NUMBER:**   **DID-PM-RVW-SRP-V5.3**

2. **TITLE:**   **SYSTEM REVIEW PLAN**

3. **DESCRIPTION AND INTENDED USE**

3.1   The System Review Plan (SRP) describes the Contractor's organisation, responsibilities and procedures for the conduct of System Reviews, which encompass both Mandated System Reviews and Internal System Reviews. The SRP defines the specific reviews to be carried out under the Contract; the scheduling, sequencing and interrelationships of these reviews; the review entry and exit criteria; and the relationship between the System Reviews to key milestones of the technical program, particularly engineering and Integrated Logistic Support (ILS). The SRP also describes its relationship to other elements in the Contractor's overall technical program.

3.2   The Contractor uses the SRP to:

a.   define, implement and manage its System Review program;

b.   ensure that those parties (including Subcontractors) who are undertaking System Review activities understand their respective responsibilities, the processes to be used, and the time-frames involved; and

c.   ensure that those parties (including Subcontractors) who are providing data to enable System Review activities to be undertaken understand their respective responsibilities, the data to be provided, and the time-frames for providing that data.

3.3   The Commonwealth uses the SRP to:

a.   understand and evaluate the Contractor's program of System Reviews;

b.   assist with evaluating progress under the Contract; and

c.   identify and understand the Commonwealth's involvement in the program of System Reviews, including the monitoring of the Contractor's program.

4. **INTER-RELATIONSHIPS**

4.1   The SRP is subordinate to the following data items, where these data items are required under the Contract:

a.   Project Management Plan (PMP);

b.   Systems Engineering Management Plan (SEMP);

c.   Integrated Support Plan (ISP);

d.   Configuration Management Plan (CMP);

e.   Verification and Validation Plan (V&VP);

f.   Contractor Transition Plan (CTXP); and

g.   Quality Plan (QP).

4.2   The SRP inter-relates with the following data items, where these data items are required under the Contract:

a.   Mission System Technical Documentation Tree (MSTDT);

b.   Support System Technical Data List (SSTDL); and

c.   any other data items that identify Technical Data, Contract Material, Software, or other products that will be addressed at a System Review.

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   General

6.2.1.1   The SRP shall address both Mandated System Reviews (MSRs) and Internal System Reviews.

6.2.2   Document Overview and Use

6.2.2.1   The SRP shall summarise the purpose and contents of the SRP and shall describe any security or privacy considerations associated with its use.

6.2.2.2   The SRP shall describe the objectives, scope, constraints, and assumptions associated with the Contractor's program of System Reviews. Any risks associated with the Contractor's program of System Reviews shall be documented in the risk register, in accordance with the Approved PMP; however, the SRP shall describe the risk-management strategies associated with any global risks related to the program of System Reviews.

6.2.3   System Reviews

6.2.3.1   The SRP shall define entry criteria, exit criteria and checklist items for each of the MSRs, as defined by the Contract. The SRP shall incorporate the MSR Checklists for MSRs, supplemented where required by the Contractor's internal processes.

6.2.3.2   Noting that a developer should have a comprehensive review program regardless of any contractual requirements, the SRP shall also define the entry, exit and checklist items for Internal System Reviews conducted to conform to the Contractor's internal processes, including:

a.   the review program to be conducted by the Contractor with respect to its own development activities;

b.   the review program to be conducted by the Contractor with respect to its Approved Subcontractors; and

c.   the review program to be conducted by the Approved Subcontractors.

6.2.3.3   The SRP shall define the interrelationship between reviews, both MSRs and Internal System Reviews, and the sequence in which the reviews shall be held.

6.2.3.4   The SRP shall detail the following information for each of the System Reviews (both MSRs and Internal System Reviews):

a.   proposed review venue;

b.   pre-requisites for the conduct of the review (entry criteria);

c.   documentation to be reviewed, including data items required by the CDRL and other documentation (including both Technical Data and Contract Material) identified in an Approved data item (eg, in an Approved plan or other data item, such as the MSTDT or the SSTDL);

d.   review objectives, including essential review completion criteria (exit criteria);

e.   for at least the MSRs, the proposed set of staged activities that culminate in the review meeting to assess the achievement of the exit criteria for that review; and

f.   details of the organisation(s) and individuals involved in the review and their specific review responsibilities.

6.2.3.5   For each review, the SRP shall define the skills and experience required of the reviewers, the manner in which independence will be maintained and, where applicable, how the requirements of the relevant ADF regulatory / assurance framework will be met.

6.2.3.6   The SRP shall identify the expectations of the Contractor with respect to the role of the Commonwealth personnel in the lead up to, and the conduct of, the System Reviews.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-PM-START-CSUP-V5.3

2.   TITLE: CONTRACT START UP PLAN

3.   DESCRIPTION AND INTENDED USE

3.1   The Contract Start Up Plan (CSUP) describes the Contractor's strategy, methodology and series of activities to ensure an orderly start up to the Contract.

3.2   The Contractor uses the CSUP to manage the start-up activities associated with the Contract.

3.3   The Commonwealth use the CSUP to monitor Contractor progress during this critical phase of the Contract.

4.   INTER-RELATIONSHIPS

4.1   The CSUP interacts with the following data items, where these data items are required under the Contract:

a.   Earned Value Management Plan (EVMP).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The CSUP may consist of a number of smaller plans, with each plan addressing a single topic or a group of interrelated topics.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   General

6.2.1.1   Unless otherwise defined in the Contract, the CSUP shall cover the Contractor's start-up activities for the Contract for the period from the start of the Contract (eg, the Effective Date, Operative Date, or Contract Start Date) until the Integrated Baseline Review (IBR).

Note: The exact term used to define the start of the Contract is defined in the Glossary.

6.2.2   Activities

6.2.2.1   The CSUP shall address all of the Contractor's start-up activities associated with the Contract, including, as applicable:

a.   Contract Work Breakdown Structure (CWBS) development;

b.   Contract Master Schedule (CMS) development;

c.   Earned Value Management (EVM) set up, including an EVM Implementation Workshop, and control account and work package development activities;

d.   risk management activities;

e.   measurement system set up;

f.   preliminary engineering and Integrated Logistic Support (ILS) activities;

g.   accommodation furniture and fitting acquisition;

h.   IT system and office equipment acquisition;

i.   recruiting activities;

j.   training activities;

k.   preliminary software tool acquisition;

l.   preliminary test equipment acquisition;

m.   security set up and accreditation of facilities (and fittings), personnel and systems;

n.   quality system set up; and

o.   Configuration Management (CM) system set up.

6.2.2.2   Work Breakdown Structure

6.2.2.2.1   The CSUP shall include a Work Breakdown Structure (WBS) for the start-up period that includes the scope of work associated with the activities identified at clause 6.2.2.1.

6.2.2.2.2   The WBS included in the CSUP shall be extended to a sufficient level to permit the work to be estimated, scheduled, and the appropriate resources allocated.

6.2.2.3   Task Work-Hour Estimates

6.2.2.3.1   The CSUP shall include estimates of the skill types and number of work-hours required to complete the scope of work for each of the WBS elements identified in the WBS under clause 6.2.2.2.

6.2.2.4   Schedule

6.2.2.4.1   The CSUP shall include an integrated schedule, which shall be derived from the WBS developed under clause 6.2.2.2.

6.2.2.4.2   The schedule shall comply with the DID for the CMS, as required under the Contract, for the period covered by the CSUP.

6.2.2.5   Staff Skills Profile

6.2.2.5.1   The CSUP shall include a staff skills profile, which identifies the staff skill types and numbers needed to meet the schedule developed under clause 6.2.2.4, for each month of the schedule.

6.2.2.5.2   The CSUP shall include a consolidated staff skills profile identifying the total numbers of staff for each skill type, for each month of the schedule, for the total set of tasks identified in the schedule at clause 6.2.2.4.

6.2.3   Subcontractor Start Up

6.2.3.1   The CSUP shall describe the plan for the start-up of Approved Subcontracts during the period covered by the CSUP, identifying:

a.   when any new Approved Subcontracts will be established or, if applicable, when any existing Approved Subcontracts will be modified;

b.   the nature of the Approved Subcontract to be established in the start-up period (eg, interim arrangement or the full Subcontract); and

c.   the integration of the Approved Subcontractor's planning activities during start-up, with those of the Contractor, to ensure that the Delivery Schedule in Attachment C will be met.

6.2.4   Contract Start Up Progress Report

6.2.4.1   The CSUP shall describe the format and content of the Contractor's proposed Contract Start Up Progress Report.

6.2.4.2   The Contract Start Up Progress Report shall enable the Commonwealth Representative to track progress against the plans for each of the activities identified at clause 6.2.2.1.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-PM-STAT-CSR-V5.3

2.   TITLE: CONTRACT STATUS REPORT

3.   DESCRIPTION AND INTENDED USE

3.1   The Contract Status Report (CSR) is the Contractor's principal statement and explanation of the status of the Contract at the end of each reporting period.

3.2   The Contractor uses the CSR to inform the Commonwealth and to provide regular updates on:

      a.   provision of the Supplies;

      b.   progress of planned activities; and

      c.   problems, risks and Issues.

3.3   The Commonwealth uses the CSR:

      a.   to assist with monitoring the performance of the Contractor; and

      b.   as a document that forms part of the historical record of contractual performance.

4.   INTER-RELATIONSHIPS

4.1   The CSR is subordinate to the following data items, where these data items are required under the Contract:

      a.   Project Management Plan (PMP);

      b.   Australian Industry Capability (AIC) Plan; and

      c.   all other plans for which there is a reporting requirement identified in this DID.

4.2   The CSR inter-relates with the following data items, where these data items are required under the Contract:

      a.   Contract Master Schedule (CMS);

      b.   Earned Value Performance Report (EVPR);

      c.   Measurement Data;

      d.   Support System Technical Data List (SSTDL);

      e.   Software List (SWLIST); and

      f.   all other reports and minutes of meetings required under the Contract.

4.3   The CSR inter-relates with the Technical Data and Software Rights (TDSR) Schedule.

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

      Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   When the Contract has specified delivery of another data item (eg, schedule or register) that contains aspects of the required information (including for the same reporting period), the CSR shall summarise these aspects and refer to the other data item.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2	**Specific Content**

6.2.1   Contract Progress

6.2.1.1   The CSR shall identify the date at which the CSR is statused and the time period since the status date of the previous CSR (the 'reporting period').

6.2.1.2   The CSR shall include the following information:

a.   a summary of significant work activities (including those undertaken by Approved Subcontractors) undertaken during the reporting period, cross-referring to the Risk Report and the Problem Report as applicable;

b.   a summary of significant work activities (including those to be undertaken by Approved Subcontractors) expected to be undertaken in the next reporting period;

c.   an engineering and Verification and Validation (V&V) report, giving the status of engineering and V&V activities;

d.   a summary of the Contractor's Configuration Control Board (CCB) minutes, including documentation of the major decisions of the Contractor CCB meetings;

e.   an Integrated Logistic Support (ILS) report, giving the status of ILS activity;

f.   a report identifying the status of all outstanding data items, the data items delivered during the reporting period and the data items to be delivered in the next reporting period, including delivered / due dates (as applicable), review cycles and results;

g.   a report providing a list of those data items that have been reviewed for accuracy in accordance with the maintenance requirements of the CDRL, and found not to need updating;

h.   a list of all progress meeting action items and their status;

i.   a financial report, including payments envisaged during the next three months;

j.   details of any specific activities or commitments by the Contractor and Approved Subcontractors to provide further support to the Indigenous Procurement Policy or the engagement and employment of ANZ veterans;

k.   a report on progress of any required Export Approvals (if applicable);

l.   a list of correspondence that requires a response from the Commonwealth, but for which no response has been received; and

m.   a list of Commonwealth correspondence to the Contractor for which a response is outstanding, and an estimate of the response date.

6.2.1.3   The CSR shall include one of the two following statements from the Contractor (along with any additional information required by the statement) pursuant to COC clause 11.2:

a.   'During the reporting period, there has been no event or series of events that has triggered any of the Contractor's reporting obligations pursuant to COC clause 11.2'; and

b.   'During the reporting period, there has been an event or series of events that has triggered one or more of the Contractor's reporting obligations pursuant to COC clause 11.2. A summary of those events is set out below.' [… Contractor to insert details of non-conformance(s) / trigger event(s) …].

6.2.2   Measurement Report

6.2.2.1   The CSR shall include a Measurement Report, which includes the Measurement Data and the Contractor's analysis of the Measurement Data. It shall include, for each item of Measurement Data:

a.   the result(s) obtained;

b.   an analysis of the result(s);

c.   interpretation of the analysis; and

d.   any corrective actions resulting from the interpretation.

6.2.3   **Risk Report**

6.2.3.1   The CSR shall include a Risk Report, which reflects the current status of risk for the Contract.

6.2.3.2   The Risk Report shall include the following information from the Risk Register:

  a.   the 20 most significant Contract risks, including all of the details required in the Risk Register for those risks;

  b.   the total cost exposure caused by all risks to the Contract;

  c.   the budget reserve remaining for cost risks;

  d.   the total schedule exposure caused by all risks to the Contract; and

  e.   the total schedule reserve remaining.

6.2.3.3   The Risk Report shall include highlights of progress in risk mitigation activities and any changes in risk status since the previous CSR.

6.2.4   **Problem Report**

6.2.4.1   The CSR shall include a Problem Report, which describes the significant problems experienced during the reporting period and any potential problems. For each problem, the description shall include:

  a.   an account of the problem;

  b.   the effect of the problem on the Contract to date;

  c.   the proposed resolution;

  d.   any requested Commonwealth Representative actions to overcome or mitigate the problem;

  e.   the effect on the Contract if the proposed actions are put into effect; and

  f.   the effect on the Contract if the proposed actions are not taken or fail.

6.2.5   **Configuration Change Register**

6.2.5.1   The CSR shall include a Configuration Change Register (CCR), which records all activities relating to Contract Change Proposals (CCPs), Engineering Change Proposals (ECPs) and Deviations (including variances) during the reporting period. The first section of the CCR shall contain active items, and the second section shall contain brief details of closed and completed items.

6.2.5.2   The active items section of the CCR shall include information such as reference number, title, abstract, date raised, date approved, affected Contract clause number, responsible party, cost/savings involved, date of last action, status at last action, target date for completion of next action, target status at completion of next action, and target date for completion of the CCP, ECP or Deviation.

6.2.5.3   The closed and completed section of the CCR shall include information such as reference number, title, abstract, affected Contract clause number, cost/savings involved, and closure/completion date.

6.2.6   **Quality Assurance Report**

6.2.6.1   The CSR shall include a Quality Assurance Report, which addresses:

  a.   Certification status and external audit results;

  b.   internal audit non-conformances;

  c.   a summary of Subcontractor audits performed and details of non-conformances detected;

  d.   a summary of the actions taken to resolve non-conformances and any outstanding actions that are still pending; and

  e.   any other quality-related subject on an exception basis nominated by the Commonwealth Representative or Quality Assurance Representative.

6.2.7   Personnel Report

6.2.7.1   The CSR shall include a Personnel Report, which provides the following information:

a.   the number of Full-Time Equivalent (FTE) personnel being employed by the Contractor and each Approved Subcontractor for the purposes of the Contract, including the location (by country and within Australia by the postcode of the place of employment);

b.   details of the actual versus planned FTE (both total and by skill category) for the Contractor, including any issues with respect to fulfilling the personnel requirements in relation to numbers, skills and experience);

c.   any issues with respect to Key Persons, including any proposed changes to Key Persons or Key Staff Positions;

d.   a statement as to whether or not the Contractor's obligations in regard to current and future contracts / work has any implications for the Contract in relation to fulfilling the personnel requirements; and

e.   a brief description as to how any identified issues are being addressed.

6.2.8   Australian Industry Activity Report

6.2.8.1   Where Australian Industry Activities (AIAs) are included in the Contract, the CSR shall include an AIA Report, which provides the following information for the reporting period:

a.   a summary of the activities undertaken in relation to each AIA, the outcomes achieved, any difficulties experienced, any emerging risks identified, and the activities for the next reporting period to address the identified difficulties and/or risks, including reference to any associated AIC Remediation Plan;

b.   where Defence-Required Australian Industry Capabilities (DRAICs) are applicable to the Contract, the following information for each DRAIC in addition to the information provided in response to paragraph a above:

(i)   identification of the funds expended (in AUD) over the reporting period and to date against the total planned expenditure for the DRAIC; and

(ii)   where a DRAIC has progressed through Acceptance, an assessment of the ongoing viability and sustainability of the DRAIC, particularly to ensure that it is available when required, in the form required and with the capability required, either under the Contract or the Contract (Support); and

c.   identification of any achievements, suitable for publication, that demonstrate the benefits of the AIC program to Defence and/or to promote the value of the Contract to the Australian economy.

6.2.9   Australian Contract Expenditure Progress Report

Note: The CDRL may specify a delivery schedule for this element of the CSR that is different from the remainder of the CSR.

6.2.9.1   The CSR shall include an Australian Contract Expenditure (ACE) Progress Report, which provides the following information:

a.   the ACE and Imported Contract Expenditure (ICE), both in numerical form and as a graphical representation, including:

Note: Planned ACE and ICE only include those elements that form part of the Contract Price.

(i)   the total values of ACE and ICE planned for the Contract;

(ii)   the values of ACE and ICE for the current reporting period;

(iii)   the cumulative values of ACE and ICE to the end of the reporting period;

(iv)   the Achieved ACE Percentage versus the Prescribed ACE Percentage for the last ACE Measurement Point prior to the end of the reporting period;

(v)   the forecast values of ACE and ICE for the next reporting period;

(vi)   the forecast values of ACE and ICE for the next ACE Measurement Point;

(vii)   the Achieved ACE Percentage forecast for the next ACE Measurement Point; and

(viii)   the forecast cumulative value of ACE and ICE for the remainder of the Contract;

b.   a report on the progress towards achieving the Prescribed ACE Percentages up until the end of the reporting period, which:

(i)   in respect of the cumulative ACE value that had been budgeted by the Contractor to the end of the reporting period, provides an explanation for any over- or under-expenditure of the ACE, where over- or under-performance is defined as a variance from the cumulative baseline plan to the end of the reporting period by greater than the following amounts:

(a)   where the Contract Price is less than, or equal to, AUD100m, +/- 5% or +/- AUD1m (whichever is greater);

(b)   where the Contract Price is greater than AUD100m but less than, or equal to, AUD500m, +/- 1% or +/- AUD2.5m (whichever is greater); and

(c)   where the Contract Price is greater than AUD500m, +/- 0.5% or +/- AUD5m (whichever is greater);

(ii)   provides an explanation for over- or under-performance achieved in relation to the Prescribed ACE Percentage at the last ACE Measurement Point prior to the end of the reporting period and that is expected to be achieved at the next ACE Measurement Point;

(iii)   describes what actions will be or are being taken to address under-performance of ACE, including reference to any AIC Remediation Plan; and

(iv)   identifies any emerging risks that could prevent full achievement of ACE; and

c.   a breakdown of the ACE by postcode, including for each postcode:

(i)   the cumulative value of ACE achieved to the end of the reporting period; and

(ii)   the forecast cumulative value of ACE for the remainder of the Contract.

6.2.10   Procurement Report

6.2.10.1   The CSR shall include a Procurement Report, which addresses the status of activities for the reporting period in relation to industry engagement and procurement activities leading to subcontract, to promote opportunities for Australian Industry, including:

a.   a summary of the industry engagement activities conducted, including:

(i)   the briefings to industry given by the Contractor during the reporting period and cumulatively to the end of the reporting period, including the location of the briefing, and the number of attendees and organisations represented by location; and

(ii)   other major industry engagement activities (eg, participation in relevant trade shows and targeted procurement briefings for an equipment or category of equipment), indicating the location, engagement objective, and approximate number and nature of attendees that participated in the engagement activities;

b.   details of the number of organisations that have registered their interest in the project (excluding any response to a formal procurement activity) by location (ie, by country and within Australia by the postcode of the organisation's primary location nominated on their registration of interest application), separately identifying those organisations that have:

(i)   generically registered their interest to the Contractor (eg, through an internet portal); and

(ii)   specifically registered their interest in response to an expression of interest issued by the Contractor;

c.   details of any specific activities to engage with Small-to-Medium Enterprises (SMEs) during the reporting period and any forecast engagement activities for the next reporting period; and

d.   details of the procurement activities (ie, supplier activities prior to subcontract signature), which provides the following information in relation to potential suppliers based in Australia and overseas for both the reporting period and cumulatively for the Contract for all categories of products and services:

     (i)   number by the location (by country and within Australia by postcode when known) and an estimate of the potential value (in AUD) of:

         (a)   all Supplier Request Documents (SRDs) issued; and

         (b)   all responses received to the SRDs;

         in each of the following periods:

         (c)   prior to the reporting period;

         (d)   in the reporting period; and

         (e)   forecast for the next reporting period;

     (ii)   a summary of any significant issues or risks associated with the procurement activities identified during the reporting period, cross-referring to any risks identified in the Risk Register where applicable;

     (iii)   if applicable during the reporting period, a summary of any Materiel Procurement Strategies (MPSs) or Materiel Procurement Business Cases (MPBCs) raised and the Commonwealth's responses to the MPSs/MPBCs; and

     (iv)   advice as to whether or not an update is required to the Schedule of Approved Subcontractors at Attachment H.

6.2.11   AIC Initiatives Report

6.2.11.1   Where an AIC initiatives program is applicable to the Contract, the CSR shall include an AIC Initiatives Report that provides a summary for the reporting period of:

a.   each Approved Australian Industry Opportunity (AIO) being progressed, including its goals and implications for the AIC Objectives;

b.   when applicable, the progress of any MPBCs for AIOs being prepared;

c.   progress for each Approved AIO including, as applicable, preparation of the CCP to incorporate the Approved AIO, or progress against the plan for implementing the Approved AIO;

d.   any problems or Issues encountered with implementing an Approved AIO, including the approach to resolving the problems or Issues;

e.   any potential AIOs awaiting disposition by the Commonwealth; and

f.   any potential AIOs that were rejected by the Commonwealth.

6.2.12   Research and Development Report

6.2.12.1   Where research and development (R&D) activities are applicable to the Contract, the CSR shall include an R&D Report on the contracted R&D activities performed during the reporting period and a forecast of what will be performed in the next reporting period, including:

a.   the title of the activity;

b.   a brief description of the activity, including the outcomes sought;

c.   progress of the activity towards the outcomes, including any interim outcomes achieved or setbacks experienced; and

d.   a statement as to whether or not the activity is likely to achieve the outcomes being sought and any measures either put in place or to be put in place to address any shortfalls or risks.

6.2.13   Technical Data and Software Rights Report

6.2.13.1   The CSR shall include a Technical Data and Software Rights Report (TDSRR), which facilitates a review of the activities to manage Technical Data and Software rights under the Contract undertaken during the reporting period.

6.2.13.2   The TDSRR shall:

a.   summarise any significant events (eg, completing a development stage) during the reporting period, and any significant events expected in the next reporting period, that affect Technical Data and Software rights, identifying the scope of Technical Data and Software affected;

b.   report on the progress made to grant, or have granted, rights to Technical Data and Software in accordance with the Contract, including rights to enable the delivery of Technical Data and Software in accordance with the Approved SSTDL and the Approved SWLIST, as applicable;

c.   identify the risks and any Issues in relation to obtaining Intellectual Property licences or any other Authorisations required for Technical Data and Software; and

d.   describe and justify any proposed changes to the assignment of the Commonwealth's rights to items of Technical Data and Software, including:

(i)   identification of the relevant items of Technical Data and Software;

(ii)   the effect of the change on the value of Technical Data and Software deliverables to the Commonwealth (eg, LCC increase from a monopolistic supply or a reduction in work accessible by Australian Industry);

(iii)   any effect on the Contract schedule;

(iv)   changes to claims pending (eg, reductions for reduced rights); and

(v)   any effect on the performance of the Mission System, or limitations applicable to the implementation of the Support System.

6.2.13.3   The TDSRR shall cross-reference other data items, the TDSR Schedule, and other Attachments, as appropriate.

6.2.14   Subcontractor Report

6.2.14.1   The CSR shall include a Subcontractor Report, which shall report on ANZ and overseas Subcontractors in separate sections, and provides the following information for both the reporting period and cumulatively for the Contract:

a.   number by the location (by country and within Australia by postcode where the Subcontract is placed) and value (in AUD) of all Subcontracts signed or to be signed by the Contractor:

(i)   prior to the reporting period;

(ii)   in the reporting period;

(iii)   forecast for the next reporting period; and

(iv)   any significant Issues or risks associated with establishing the Subcontract; and

b.   a summary for each Approved Subcontractor of:

(i)   significant work activities undertaken during the reporting period;

(ii)   significant work activities expected to be undertaken in the next reporting period;

(iii)   progress against the Subcontract elements of the Approved CMS; and

(iv)   any significant Issues or risks associated with the subcontracted work, including the status of key deliverables that are either overdue or non-compliant to requirements or likely to become so.

6.2.14.2   The Subcontractor Report shall provide an overview of any activities conducted with contracted SMEs during the reporting period, particularly any activities that are assisting the SMEs with building or enhancing their capabilities.

6.2.14.3   The Subcontractor Report shall include a list of the top 50 Subcontracts to-date (including closed Subcontracts) based on the value of the Subcontracts at the date of the report, with the 50th item listed to be a summation of the values of all of the remaining Subcontracts.

6.2.15   Health Safety and Environment Report

6.2.15.1   The CSR shall include a Health Safety and Environment (HSE) Report applicable to the work performed under the Contract during the reporting period.

6.2.15.2   The HSE Report shall, in relation to work performed under the Contract to which the WHS Legislation and environmental legislation applies, include where applicable:

a.   for the statistical measures related to WHS that are routinely collected by the Contractor and Approved Subcontractors for the measurement period(s) ending within the CSR reporting period (eg, lost-time injuries, incident rates (per 100 workers), frequency rates (per hours worked) and average time lost rate (per occurrence) by company and/or relevant work location):

(i)   a summary of the results; and

(ii)   a comparison with previous results to enable the identification of trends;

b.   for Notifiable Incidents, a tabulated summary of Notifiable Incidents, including cause, effect, remedial actions completed and those yet to be completed, if applicable;

c.   a summary of:

(i)   the formal notices, written communications and written undertakings required to be provided under clause 12.4.5 of the COC; and

(ii)   any legal proceedings and prosecutions related to applicable legislation, including the WHS Legislation;

d.   where environmental management is required under the Contract, a summary of Environmental Incidents, including cause, effect, remedial actions completed and those yet to be completed, if applicable;

e.   information concerning events related to WHS and the Environment that may affect work performed under the Contract (eg, changes to legislation or directions by a regulator) and, if applicable, activities to address those events; and

f.   where a WHSMS and/or ENVMS are required under the Contract to be certified, the certification status of the WHSMS and/or ENVMS.

6.2.16   Commonwealth Assets Stocktaking Report

Note: The CDRL may specify a delivery schedule for this element of the CSR that is different from the remainder of the CSR.

6.2.16.1   The CSR shall include a Commonwealth Assets Stocktaking Report (CASR), which provides:

a.   the current version of the Assets Register for the Contractor Managed Commonwealth Assets;

b.   a summary of all stocktakes completed in the last reporting period, detailing:

(i)   the stocktake number;

(ii)   the storage location of all goods included in the stocktake;

(iii)   all stocktake codes;

(iv)   stocktake start and end dates; and

(v)   statistical data, including the quantity and value of all discrepancies, shelf stock held, shelf stock stocktaked, surpluses and deficiencies;

c.   a summary of all stocktakes programmed for the next reporting period;

d.   the percentage of completed stocktakes as a percentage of the total number of stocktakes programmed to meet the Contractor Assets Stocktaking Plan (CASP) requirements of the PMP; and

e.   if the CASP requirements are not being achieved, a description of actions taken to ensure the CASP requirements are achieved in future.

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DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-PM-STAT-EVPR-V5.3

2.   TITLE: EARNED VALUE PERFORMANCE REPORT

3.   DESCRIPTION AND INTENDED USE

3.1   The Earned Value Performance Report (EVPR) provides the Contractor's earned value performance information for the reporting period. The EVPR Formats 1, 2, 3, 4 and 5 are designed to report various aspects of the Contractor's performance and future planning. In summary:

a.   **Format 1** provides data to measure cost and schedule performance by summary level Contract Work Breakdown Structure (CWBS) elements;

b.   **Format 2** provides similar measurement data to Format 1, by organisational unit or functional cost categories;

c.   **Format 3** provides the Performance Measurement Baseline (PMB) and records any changes to the PMB implemented in the reporting period;

d.   **Format 4** provides staffing forecasts, for correlation with the budget plan and cost estimate predictions;

e.   **Format 5** is a narrative report used to explain significant cost and schedule variances and other identified Contract problems; and

f.   where required, the Deltek Cobra **data backup file** provides the frozen month end position for the reporting period data to allow generation of resource profiles, time phased trend analysis for Planned Value (PV), Earned Value (EV), Actual Cost (AC), Estimate at Completion (EAC) and Estimate to Complete (ETC), and comparison of historical frozen EACs to latest revised estimates.

3.2   The Contractor uses the EVPR to provide:

a.   regular updates on its performance against the PMB in undertaking the work required under the Contract;

b.   earned value performance data that can be analysed by the Commonwealth; and

c.   narrative information to help explain cost and schedule variances for any reporting element, as required by the SOW, including for:

(i)   the reporting period;

(ii)   cumulatively to the end of the reporting period; and

(iii)   the estimate at completion.

3.3   The Commonwealth uses the EVPR to:

a.   evaluate Contractor performance;

b.   identify the magnitude and impact of actual and potential problem areas causing significant cost and schedule variances and assess any related risks; and

c.   provide valid, timely program status information to higher authority.

Note: Certain aspects of the reporting requirements are subject to agreement between the Commonwealth and the Contractor (with these agreements to be captured in the Earned Value Management Plan (EVMP)), such as:

a.   the report formats to be provided by the Contractor to the Commonwealth;

b.   the content of those formats where specific data elements are not relevant to the type of contract (eg, target profit, share ratio);

c.   *the specific variance thresholds which, if exceeded, require problem analysis and narrative explanations;*

d.   *the specific organisational or functional categories to be reported in Formats 2 and 4;*

e.   *the specific time increments to be used for the baseline and staffing projections required by Formats 3 and 4; and*

f.   *if applicable, the use of EVM data to satisfy the Australian Industry Capability (AIC) reporting requirements of clause 10 of the SOW (eg, to report actual Australian Contract Expenditure (ACE) against the baseline plan for this expenditure).*

4. INTER-RELATIONSHIPS

4.1   The EVPR is subordinate to the following data items, where these data items are required under the Contract:

     a.   Project Management Plan (PMP); and

     b.   Earned Value Management Plan (EVMP).

4.2   The EVPR inter-relates with the following data items, where these data items are required under the Contract:

     a.   Contract Work Breakdown Structure (CWBS);

     b.   Contract Master Schedule (CMS);

     c.   Measurement Plan;

     d.   Measurement Data;

     e.   Contract Status Report (CSR); and

     f.   other status reporting as required by the Contract.

5. APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

AS 4817:2019	Earned value management in project and programme management
CASG Manual (PM) 006	Defence Supplement to the Australian Standard for Earned Value Management, AS 4817

6. PREPARATION INSTRUCTIONS

6.1 Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   EVPR data shall be furnished in the following formats:

     a.   EVPR Formats 1 to 5 in Microsoft Excel format;

     b.   where EVPR formats require signatures, in searchable Adobe Acrobat format showing the applicable signatures; and

     c.   where Deltek Cobra is used by the Contractor, the data backup file (*.cmp).

6.1.3   Examples of EVPR Formats 1 to 5 are provided in Figures 1 to 5.

6.2 Specific Content

6.2.1 General Requirements

6.2.1.1   The data in the EVPR shall pertain to authorised Contract work, including both priced and unpriced effort, and shall be reported at the cost level.

6.2.1.2   EVPR Formats 1 to 5 shall be completed in accordance with the instructions in clauses 6.2.2 to 6.2.7.

6.2.1.3   EVPR Formats 1 and 5 shall be reported at the Control Account level unless otherwise specified in the Approved EVMP or notified to the Contractor in accordance with clause 3.2.5.2 of the SOW. If a problem area is indicated at a lower level of the CWBS, more detailed data shall be provided until the problem is identified and resolved.

6.2.2   **Formats 1 to 5**

6.2.2.1   **Sections 1 to 4 - Heading Information**

a.   **Contractor Name and Location:** Enter the name, division (if applicable), plant location and mailing address of the Contractor.

b.   **Contract Name, Number and Type:** Enter the contract name, contract number (and number of the latest contract change or supplemental agreement applicable to the Contract), and contract type.

c.   **Share Ratio:** If applicable, enter the cost sharing ratio(s) applicable to costs over/ under the negotiated Contract cost.

d.   **Project/Program Number, Phase and Name:** Enter the project/program number, phase, and name and acronym and/or the type, model series or other designation of the prime items purchased under the Contract.

e.   **Report Period:** Enter the beginning and ending dates of the period covered by the report.

f.   **Signature, Name, Title and Date:** The Contractor's authorised representative shall sign the report and enter their name, title and date of signature.

6.2.3   **Format 1 - Work Breakdown Structure Report**

6.2.3.1   **Section 5 - Contract Data**

a.   **Quantity:** Enter the number of prime items to be procured under the Contract.

b.   **Negotiated Cost:**   Enter the dollar value, excluding fee or profit, on which contractual agreement has been reached as at the cut-off date of the report. Amounts for changes shall not be included in this item until they have been priced and incorporated into the Contract by Contract amendment.

c.   **Estimated Cost of Authorised Unpriced Work:** Enter the amount, excluding fee or profit, estimated for that work for which written authorisation has been received but for which the Effective Date Contract prices have not been incorporated into the Contract by Contract amendment. This is applicable only where the Contract expressly provides for Authorised Unpriced Work.

d.   **Target Profit/Fee %:** Enter the fee or percentage of profit that will apply if the Negotiated Cost of the Contract is met.

e.   **Target Price:** Enter the target price (Negotiated Cost plus profit/fee) applicable to the Effective Date Contract effort.

f.   **Estimated Price:** For non-fixed price contracts, based on the latest Estimate at Completion for all authorised Contract work and the appropriate profit/fee, incentive, and cost sharing provisions, enter the estimated final Contract Price. This figure will normally change whenever the Estimate at Completion is revised.

g.   **Contract Ceiling:** Enter the Contract ceiling price applicable to the defined effort. This is applicable only to contracts with a ceiling.

h.   **Estimated Contract Ceiling Price:** For cost plus contracts, enter the estimated ceiling price applicable to all authorised Contract effort and Authorised Unpriced Work. This is applicable only to contracts with a ceiling.

i.   **Date of Over Target Baseline (OTB)/Over Target Schedule (OTS):** Where applicable, enter the date of OTB and/or OTS implementation.

6.2.3.2   Section 6 - Estimated Cost at Completion

a.   **Column (1) - Management Estimate at Completion:**

(i)   **Best Case:** Enter the estimate of the lowest total cost to complete the Contract scope of work.

(ii) **Worst Case:** Enter the estimate of the highest total cost to complete the Contract scope of work.

(iii) **Most Likely:** Enter the estimate of the most likely total cost to complete the Contract scope of work.

b.   **Column (2) - Contract Budget Base:** Enter the sum of the Negotiated Cost and the Estimated Cost of Authorised Unpriced Work.

c.   **Column (3) - Variance:** Enter the difference between the Contract Budget Base and the Most Likely Management Estimate at Completion by subtracting column (1) from column (2).

6.2.3.3   Section 8 - Performance Data

a.   **Work Breakdown Structure:** The CWBS elements or levels reported shall be those specified in the Contract. For each of the CWBS elements or levels in column (1), enter in columns (2) to (16) the relevant performance data from the Contractor's EVMS implemented in accordance with AS 4817:2019 and CASG Manual (PM) 006.

(i)   **Column (1) - Item:** Enter the identifiers and titles of the CWBS elements or levels for which performance data is being reported in this column.

(ii) **Columns (2) and (7) - Planned Value (PV):** For the time periods indicated, enter the PV in these columns.

(iii) **Columns (3) and (8) - Earned Value (EV):** For the time periods indicated, enter the EV in these columns.

(iv) **Columns (4) and (9) - Actual Cost (AC):** For the time periods indicated, enter the actual direct and indirect costs for the work performed without regard to ceiling. In all cases, PV, EV and AC shall be reported on a comparable cost basis.

(v)   **Columns (5) and (10) - Variance-Schedule (SV):** For the time periods indicated, these columns represent the differences between PV and EV. For the Current Period column (5), SV is derived by subtracting PV column (2) from EV column (3). For the Cumulative to Date column (10), SV is derived by subtracting PV column (7) from EV column (8). A positive value indicates a favourable variance. A negative value indicates an unfavourable variance. Variances that meet or exceed the variance thresholds specified in the Contract shall be fully explained in the problem analysis in Format 5.

(vi) **Columns (6) and (11) - Variance-Cost (CV):** For the time periods indicated, these columns represent the differences between EV and AC. For the Current Period column (6), CV is derived by subtracting AC column (4) from EV column (3). For the Cumulative to Date column (11), CV is derived by subtracting AC column (9) from EV column (8). A positive value indicates a favourable variance. A negative value indicates an unfavourable variance. Variances that meet or exceed the variance thresholds specified in the Contract shall be fully explained in the problem analysis in Format 5.

(vii) **Column (12a) - Reprogramming Adjustments-Cost Variance:** Where reprogramming has occurred, enter any changes to CV resulting from adjustments to PV or EV during the reprogram.

(viii) **Column (12b) - Reprogramming Adjustments-Schedule Variance:** Where reprogramming has occurred, enter any changes to SV resulting from adjustments to PV or EV during the reprogram.

(ix) **Column (13) - Reprogramming Adjustments-Budget:** Where reprogramming has occurred, enter any adjustments made to the Budget at Completion during the reprogram.

(x) **Column (14) - At Completion-Budgeted (BAC):** Enter the budget allocated, also known as the Budget at Completion (BAC), for the completion of each of the CWBS elements in column (1). These entries shall be the current budgets for the respective CWBS elements and thus consist of the sum of the original budget for the CWBS element plus authorised budget changes (negative or positive) resulting from Contract changes, internal replanning, or the application of Management Reserve. The Total should equal the Contract Budget Base except where special exception has been made resulting in formal reprogramming.

(xi) **Column (15) - At Completion-Estimated (EAC):** Enter the latest Estimate at Completion (EAC), including any estimated overrun or underrun for authorised work.

(xii) **Column (16) - At Completion-Variance (VAC):** Enter the difference between the BAC and the EAC by subtracting column (15) from column (14). A negative value reflects an unfavourable variance. Variances that meet or exceed the reporting thresholds specified in the Contract shall be fully explained in the problem analysis in Format 5.

b. **Cost of Money:** Enter in columns (2) to (16) the Cost of Money burdened as a total of all CWBS elements reported above, unless included in the CWBS elements reported above.

c. **General and Administrative (G&A):** Enter in columns (2) to (16) the applicable G&A costs. If G&A has been included in the items reported above, G&A shall be shown as a non-add entry in this line with an appropriate notation. If a G&A classification is not used, no entry shall be made other than an appropriate notation to that effect.

d. **Undistributed Budget (UB):** Enter in columns (14) and (15) the amount of budget applicable to Contract effort that has not yet been distributed to CWBS elements at or below the reporting level. For example, Contract changes that were authorised late in the reporting period should have received a total budget but the assignment of work and allocation of budgets to individual CWBS elements may not have been accomplished by the end of the period. Budgets that can be identified to CWBS elements at or below the specified reporting level shall be included in the total budgets shown for the CWBS elements in the body of the report and shall not be shown as UB. All UB shall be fully explained in the narrative analysis in Format 5.

Note: The provisions made in this report for UB are primarily to accommodate temporary situations where time constraints prevent adequate budget planning or where Contract effort can be defined only in very general terms. UB should not be used as a substitute for adequate Contract planning. Formal budgets should be allocated to Contract effort and functional organisations at the earliest possible time, normally within the next reporting period.

e. **Subtotal:** Enter in columns (2) to (16) the sums of the respective columns.

f. **Management Reserve (MR):** An amount of the overall Contract budget withheld for management control purposes rather than for the accomplishment of a specific activity or set of activities. In column (14), enter the total amount of budget identified as MR as at the end of the current reporting period. Amounts of MR applied to CWBS elements during the reporting period shall be explained in the narrative analysis in Format 5.

Note: As negative MR does not exist, negative values are not to be entered in column (14). If the Contract is budgeted in excess of the Negotiated Cost (the Negotiated Cost plus the Estimated Cost of Authorised Unpriced Work), the formal reprogramming provisions apply.

g. **Total:** Enter the sums of all direct, indirect, and G&A costs, Undistributed Budget and Management Reserve in columns (2) through to (14).

6.2.3.4   Section 9 - Reconciliation to Contract Budget Baseline

a.   **Variance Adjustment:** For the Cumulative to Date SV column (10), enter the Total from Reprogramming Adjustments column (12b). For the Cumulative to Date CV column (11), enter the Total from Reprogramming Adjustments column (12a).

b.   **Total Contract Variance:** For the Cumulative to Date SV column (10), enter the sum of the Total and the Variance Adjustment from column (10). For the Cumulative to Date CV column (11), enter the sum of the Total and the Variance Adjustment from column (11). For the Budgeted at Completion column (14), enter the Contract Budget Base from column (2) in Section 6. For the Estimated at Completion column (15), enter the Most Likely value from column (1) in Section 6. For the Variance at Completion column (16), enter the difference between the values in columns (14) and (15) by subtracting column (15) from column (14).

Note to drafters: Drafters should tailor the requirements of Format 2 to meet the information needs of the project. When required, drafters should seek advice from Project Controls Services, CASG Strategy and Planning Branch.

6.2.4   Format 2 - Organisational Categories Report

6.2.4.1   Section 5 - Performance Data

a.   **Organisational or Functional Category:** This format shall be used to collect organisational or functional EVM data at the total contract level rather than for individual CWBS elements. The level of detail to be reported will normally be limited to the organisational level immediately under the operating head of the facility except when there is a significant variance. If a problem area is indicated at a lower level of the organisation, more detailed data shall be provided until the problem is identified and resolved.

(i)   **Column (1) - Item:** Enter the organisational units or functional categories that reflect the Contractor's internal management structure in accordance with the Approved EVMP.

(ii)   **Columns (2) to (16):** The instructions applicable to columns (2) to (16) are the same as the instructions applicable to the corresponding columns in Format 1.

b.   **Cost of Money:** Enter in columns (2) to (16) the Cost of Money burdened as a total of all organisational units or functional categories reported above, unless included in the organisational units or functional categories reported above.

c.   **General and Administrative (G&A):** Enter in columns (2) to (16) the applicable G&A costs.

d.   **Undistributed Budget (UB):** Enter in columns (14) and (15) the budget applicable to contract effort that cannot be planned in sufficient detail to be assigned to a responsible organisation or functional area at the reporting level.

e.   **Subtotal:** Enter in columns (2) to (16) the sums of the respective columns.

f.   **Management Reserve (MR):** Enter in columns (13) (if reprogramming adjustments have been made) and (14) the amounts identified as Management Reserve.

g.   **Total:** Enter in columns (2) to (14) the sums of the respective columns (exclusive of Subtotals). The totals in the Total line should equal the totals in the Total line in Section 8 of Format 1.

6.2.5   Format 3 - Baseline Report

6.2.5.1   Section 5 - Contract Data

a.   **Original Negotiated Cost:** Enter the dollar value (excluding fee or profit) negotiated in the original contract. For a cost plus fixed-fee contract, enter the estimated cost negotiated. For an incentive contract, enter the defined contract target cost.

b. **Negotiated Contract Changes:** Enter the cumulative budget (excluding fee or profit) applicable to defined Contract changes which have occurred since the beginning of the Contract.

c. **Current Negotiated Cost:** Enter the sum of the Original Negotiated Cost and the Negotiated Contract Changes. The amount shown should equal the current dollar value (excluding fee or profit) on which contractual agreement has been reached and should be the same as the Negotiated Cost in Section 5 of Format 1.

d. **Estimated Cost of Authorised Unpriced Work:** Enter the estimated budget (excluding fee or profit) for contract changes for which written authorisations have been received but for which contract prices have not been negotiated as shown in Format 1. This is applicable only where the Contract expressly provides for Authorised Unpriced Work.

e. **Contract Budget Base:** Enter the sum of the Current Negotiated Cost and the Estimated Cost of Authorised Unpriced Work.

f. **Total Allocated Budget:** Enter the sum of all budgets allocated to the performance of the contractual effort. The amount shown shall include all Management Reserve and Undistributed Budget. This amount shall be the same as the amount shown in the Total line in column (14) of Format 1.

g. **Difference:** The Contract Budget Base and the Total Allocated Budget shall be identical unless the implementation of an Over Target Baseline has been approved by the Commonwealth. If the Total Allocated Budget exceeds the Contract Budget Base, the difference should be reflected as a negative value and explained in the narrative analysis in Format 5 at the time the negative value appears and subsequently for any change in the value.

h. **Contract Start Date:** Enter the date the Contractor was authorised to start work on the Contract regardless of the date of Contract definition (long lead procurement efforts authorised under prior contracts are not to be considered).

i. **Contract Effective Date:** Enter the Effective Date of the Contract as specified in the Details Schedule.

j. **Planned Completion Date:** Enter the baseline completion date from the Contract Master Schedule. This date represents the planned completion date of all Contract scope. If the Planned Completion Date differs from the Contract Completion Date, the variance shall be explained in Format 5.

k. **Contract Completion Date:** Enter the date of the Final Acceptance milestone in accordance with the latest Contract amendment.

l. **Estimated Completion Date:** Enter the latest revised estimate of Contract completion. If the Estimated Completion Date differs from the Contract Completion Date, the variance shall be explained in Format 5.

6.2.5.2 Section 6 - Performance Data

a. **Period Titles:** Enter the months for the next six report periods in the Period Titles of columns (4) to (9) and the periods specified in the Approved EVMP in the Period Titles of columns (10) to (14). Where the periods specified in columns (10) to (13) do not cover the entire duration of the Contract, the remaining period shall be entered in column (14). For each of the Items in column (1), enter the PV (by month for six months and then by the periods specified in the Approved EVMP) for the remainder of the Contract.

b. **Performance Measurement Baseline (Beginning of Period):** The time-phased Performance Measurement Baseline (PMB) (including G&A) that existed at the beginning of the current reporting period.

(i) **Column (2) - PV Cumulative to Date:** Enter the cumulative PV as at the beginning of the reporting period. This should be the value reported in the Total line in column (7) of Format 1 in the previous EVPR.

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(ii) **Column (3) - PV for Report Period:** Enter the PV for the report period. This should be the PV in column (4) in the PMB (End of Period) line in the previous EVPR.

(iii) **Columns (4) to (14) - Planned Value (PV):** Most of the entries in this line are taken directly from the PMB (End of Period) line in the previous EVPR. For example, the value in column (5) in the PMB (End of Period) line in the previous EVPR becomes the value in column (4) in the PMB (Beginning of Period) line in the current EVPR. The value in column (6) in the PMB (End of Period) line in the previous EVPR becomes the value in column (5) in the PMB (Beginning of Period) line in the current EVPR, etc. This rule can be applied through to column (9) where the periods change from monthly to the periods specified in the Approved EVMP. At this point, the portion of column (10) (End of Period) represented by the period in column (9) (Beginning of Period) is entered in column (9) (Beginning of Period) and the balance of column (10) (End of Period) is entered in column (10) (Beginning of Period). The values in columns (11) to (15) simply move directly up to the (Beginning of Period) line without changing columns.

(iv) **Column (15) - Undistributed Budget (UB):** Enter the value from column (15) in the PMB (End of Period) line in the previous EVPR.

(v) **Column (16) - Total Budget:** Enter in column (16) the sum of the values in columns (2) to (15) in the PMB (Beginning of Period) line. This should reconcile with the Subtotal in column (14) of Format 1 in the previous EVPR. The Total Budget (Beginning of Period) shall represent the Total Budget (End of Period) in the previous EVPR.

c. **Baseline Changes Authorised during Reporting Period:**

(i) **Column (1) - Item:** List, by number, the Contract changes and supplemental agreements authorised during the reporting period. All authorised baseline changes shall be listed, whether priced or unpriced. The amount of MR applied during the period shall also be listed. Significant changes and applications of MR shall be explained in Format 5 and shall include the reasons for necessary changes to time phasing due to replanning and the reasons for the application of MR.

(ii) **Columns (3) to (14) - Planned Value (PV):** Enter in columns (3) to (14) the time phased budget for each authorised baseline change.

(iii) **Column (15) - Undistributed Budget (UB):** Enter in column (15) any UB for each authorised baseline change.

(iv) **Column (16) - Total Budget:** Enter in column (16) the sum of the budgets in columns (3) to (15) for each authorised baseline change.

d. **Performance Measurement Baseline (End of Period):** The time-phased PMB that existed at the end of the current reporting period. The difference between the PMB (End of Period) line and the PMB (Beginning of Period) line is represented by the authorised baseline changes and applications of Management Reserve made during the reporting period.

(i) **Column (2) - PV Cumulative to Date:** Enter the cumulative PV as at the end of the reporting period. This should equal the PV Cumulative to Date (Beginning of Period) plus the PV for Report Period (Beginning of Period) plus any authorised baseline changes incorporated in the current month. This should be the same as the value in the Total line in column (7) of Format 1.

(ii) **Columns (4) to (14) - Planned Value:** Enter in columns (4) to (14) the sums of the respective columns.

(iii) **Column (15) - Undistributed Budget:** Enter the sum of the UB from the Beginning of Period line and, where applicable, any UB from the Baseline

Changes Authorised during Reporting Period line. This should reconcile with the UB in column (14) of Format 1.

(iv) **Column (16) - Total Budget:** Enter the sum of the values in the PMB (End of Period) line. This should reconcile with the sum of the values above.

6.2.5.3 Section 7 - Management Reserve

a. Enter in column (16) the amount of Management Reserve available at the end of the period.

6.2.5.4 Section 8 - Total

a. Enter in column (16) the sum of the values in this column in the PMB (End of Period) and Management Reserve lines. This should equal the Total Allocated Budget in Section 5 of Format 3 and the Total Budget at Completion in column (14) of Format 1.

6.2.6 Format 4 - Staffing Report

6.2.6.1 Section 5 - Performance Data

a. **Organisational or Functional Category:** For each organisational unit or functional category in column (1), direct person-months shall be indicated for the current period, cumulative through the current period, and forecast to completion (non-cumulative) in equivalent person-months. An equivalent person-month is defined as the effort equal to that of one person for one month. Values shall be reported in whole numbers (ie, partial person-months 0.5 and above shall be rounded up to the next whole number and below 0.5 shall be rounded down). When specified in the Approved EVMP, staffing may be reported in person-days or person-hours.

   (i) **Column (1) - Item:** Enter the organisational units or functional categories that reflect the Contractor's internal management structure in accordance with the Approved EVMP. The units or categories shown should correspond with the units or categories in Format 2.

   (ii) **Column (2) - Planned-Current Period:** Enter the planned direct person-months for the current period.

   (iii) **Column (3) - Actual-Current Period:** Enter the actual direct person-months incurred during the current period.

   (iv) **Column (4) - Actual-End of Current Period (Cumulative):** Enter the actual direct person-months incurred, cumulative to date, as at the end of the report period.

   (v) **Columns (5) to (15) - Forecast (Non-Cumulative):** Enter a forecast of staffing requirements by month for a six month period following the current period and then by the periods specified in the Approved EVMP. The forecast shall be updated at least quarterly, unless a major revision to the plan or schedule has been implemented, in which case, forecasts shall be updated for all periods in the EVPR submitted at the end of the month in which the revision occurred.

   (vi) **Column (16) - At Completion:** Enter the estimate of the direct person-months necessary for the total Contract in column (16) by organisational unit or functional category. Any significant change in the total number of person-months at completion of the Contract (ie, column (16) Total) should be explained in Format 5.

b. **Total Direct:** Enter in columns (2) to (16) respectively the sum of all direct person-months for the organisational units or functional categories in column (1).

6.2.7   **Format 5 - Problem Analysis Report**

6.2.7.1   **Part 1 - Total Contract:** Provide a summary analysis, identifying significant problems affecting performance. Indicate the corrective actions required, including Commonwealth action where applicable.

6.2.7.2   **Part 2 - Cost and Schedule Variances:** Explain all variances that exceed the variance thresholds specified in clause 3.2.5.2 of the SOW (see Figure 5).

6.2.7.2.1   **Section 5 - Evaluation:**

a.   **Work Breakdown Structure:** Enter the identifier and title of the CWBS element that exceeded the variance thresholds.

b.   **Performance Data - Current and Cumulative:** The following cost and schedule performance data shall be indicated for the current period and cumulative through the current period:

(i)   **Planned Value (PV):** The current and cumulative PV shall be the values reported in columns (2) and (7) respectively in Section 8 of Format 1.

(ii)   **Earned Value (EV):** The current and cumulative EV shall be the values reported in columns (3) and (8) respectively in Section 8 of Format 1.

(iii)   **Actual Cost (AC):** The current and cumulative AC shall be the values reported in columns (4) and (9) respectively in Section 8 of Format 1.

(iv)   **Schedule Variance (SV):** The current and cumulative SV shall be the values reported in columns (5) and (10) respectively in Section 8 of Format 1.

(v)   **Schedule Variance Percent (SV%):** SV% indicates how much ahead of or behind schedule the CWBS element is in percentage terms. It is calculated in accordance with the formula, $SV\% = (SV / PV) \times 100$.

(vi)   **Cost Variance (CV):** The current and cumulative CV shall be the values reported in columns (6) and (11) respectively in Section 8 of Format 1.

(vii)   **Cost Variance Percent (CV%):** CV% indicates how much under or over budget the CWBS element is in percentage terms. It is calculated in accordance with the formula, $CV\% = (CV / EV) \times 100$.

(viii)   **Schedule Performance Index (SPI):** SPI is a measure of the schedule efficiency of the CWBS element and is the ratio of EV to PV. It is calculated in accordance with the formula, $SPI = EV / PV$.

(ix)   **Cost Performance Index (SPI):** CPI is a measure of the cost efficiency of the CWBS element and is the ratio of EV to AC. It is calculated in accordance with the formula, $CPI = EV / AC$.

c.   **Performance Data - At Complete:** The following at completion performance data shall be indicated for the current period:

(i)   **Budget at Completion (BAC):** The BAC shall be the same value reported in column (14) in Section 8 of Format 1.

(ii)   **Estimate at Completion (EAC):** The EAC shall be the same value reported in column (15) in Section 8 of Format 1.

(iii)   **Variance at Completion (VAC):** The VAC shall be the same value reported in column (16) in Section 8 of Format 1.

(iv)   **Variance at Completion Percent (VAC%):** The VAC% is the VAC expressed as a percentage of the BAC. It is calculated in accordance with the formula, $VAC\% = (VAC / BAC) \times 100$.

(v)   **To Complete Performance Index (TCPI) to BAC:** The TCPI to BAC is a measure of the cost efficiency (CPI) needed for the remaining work in order to achieve the BAC. It is calculated in accordance with the formula, $TCPI_{BAC} = (BAC - EV) / (BAC - AC)$

(vi) **To Complete Performance Index (TCPI) to EAC:** The TCPI to EAC is a measure of the cost efficiency (CPI) needed for the remaining work in order to achieve the EAC. It is calculated in accordance with the formula, $TCPI_{EAC}$ = (BAC - EV) / (EAC - AC)

d. **Explanations and Problem Analysis:** Explanations of variances must clearly identify the nature of the problem, the reason for the cost or schedule variance, the impact on the total program, and the corrective action taken. Explanations for schedule variances should take into account impacts evidenced in the statused CMS. Explanations of cost variances should identify amounts attributable to rate changes separately from amounts applicable to person-hours used, amounts attributable to material price changes separately from amounts attributable to material usage, and amounts attributable to overhead rate changes separately from amounts applicable to overhead base changes and amounts applicable to changes in the overhead allocation basis.

6.2.7.3 **Part 3 - Other Analysis:** In addition to the variance explanations above, the following analyses are mandatory:

a. identify the effort to which the Undistributed Budget applies.

b. identify the amount of Management Reserve applied during the reporting period, the CWBS and organisational element(s) to which applied, and the reason for application.

c. explain the reasons for significant shifts in time phasing of the PMB shown in Format 3.

d. explain the reasons for significant changes in total person-months at completion shown in Format 4.

e. explain the reasons for significant shifts in time phasing of planned or actual staffing usage shown in Format 4.

6.2.7.4 **Part 4 - Over-Target Baseline:** If the value shown in Difference in Section 5 of Format 3 becomes a negative value or there are changes to the negative value, the analysis shall:

a. reference the Commonwealth approval for the baseline change that resulted in the negative value or change;

b. explain the reason for the additional budget in the following terms:

(i) in-scope engineering changes;

(ii) in-scope support effort changes;

(iii) in-scope schedule changes;

(iv) economic changes; and

(v) other (specify); and

c. identify the amount (by CWBS element) for added in-scope effort not previously identified or budgeted.

EARNED VALUE PERFORMANCE REPORT
FORMAT 1 - WORK BREAKDOWN STRUCTURE

EARNED VALUE PERFORMANCE REPORT
FORMAT 1 - WORK BREAKDOWN STRUCTURE

1. CONTRACTOR / **2. CONTRACT** / **3. PROJECT / PROGRAM** / **4. REPORT PERIOD**

1. CONTRACTOR		2. CONTRACT			3. PROJECT / PROGRAM		4. REPORT PERIOD
NAME		NAME			NAME		FROM (Date)
LOCATION		NUMBER			PHASE		TO (Date)
		TYPE		d. SHARE RATIO			

5. CONTRACT DATA

QUANTITY	NEGOTIATED COST	ESTIMATED COST OF AUTHORISED UNPRICED WORK	TARGET PROFIT/FEE	TARGET PRICE	ESTIMATED PRICE	CONTRACT CEILING	ESTIMATED CONTRACT CEILING	DATE OF OTB/OTS

6. ESTIMATED COST AT COMPLETION / **7. AUTHORISED CONTRACTOR REPRESENTATIVE**

	MANAGEMENT ESTIMATE AT COMPLETION (1)	CONTRACT BUDGET BASE (2)	VARIANCE (3)	NAME		TITLE		
BEST CASE				SIGNATURE				DATE SIGNED
WORST CASE								
MOST LIKELY								

8. PERFORMANCE DATA

WORK BREAKDOWN STRUCTURE	CURRENT PERIOD					CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	PLANNED VALUE	EARNED VALUE	ACTUAL COST	VARIANCE		PLANNED VALUE	EARNED VALUE	ACTUAL COST	VARIANCE		COST VARIANCE	SCHEDULE VARIANCE	BUDGET	BUDGETED	ESTIMATED	VARIANCE
ITEM				SCHEDULE	COST				SCHEDULE	COST						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12a)	(12b)	(13)	(14)	(15)	(16)
COST OF MONEY																
GENERAL AND ADMINISTRATIVE																
UNDISTRIBUTED BUDGET																
SUBTOTAL																
MANAGEMENT RESERVE																
TOTAL																

9. RECONCILIATION TO CONTRACT BUDGET BASELINE

VARIANCE ADJUSTMENT	
TOTAL CONTRACT VARIANCE	

Figure 1

EARNED VALUE PERFORMANCE REPORT
FORMAT 2 - ORGANISATIONAL CATEGORIES

EARNED VALUE PERFORMANCE REPORT															
FORMAT 2 - ORGANISATIONAL CATEGORIES															

1. CONTRACTOR
NAME
LOCATION

2. CONTRACT
NAME
NUMBER
TYPE   SHARE RATIO

3. PROGRAM
NAME
PHASE

4. REPORT PERIOD
FROM *(Date)*
TO *(Date)*

5. PERFORMANCE DATA

ORGANISATIONAL OR FUNCTIONAL CATEGORY	CURRENT PERIOD					CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	PLANNED VALUE	EARNED VALUE	ACTUAL COST	VARIANCE		PLANNED VALUE	EARNED VALUE	ACTUAL COST	VARIANCE		COST VARIANCE	SCHEDULE VARIANCE	BUDGET	BUDGETED	ESTIMATED	VARIANCE
				SCHEDULE	COST				SCHEDULE	COST						
ITEM																
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12a)	(12b)	(13)	(14)	(15)	(16)
b. COST OF MONEY																
c. GENERAL AND ADMINISTRATIVE																
d. UNDISTRIBUTED BUDGET																
e. SUBTOTAL *(Performance Measurement Baseline)*																
f. MANAGEMENT RESERVE																
g. TOTAL																

Figure 2

ASDEFCON (Strategic Materiel)　　　　　　　　　　　　　　　　　　　　　　　　　DID-PM-STAT-EVPR-V5.3

EARNED VALUE PERFORMANCE REPORT
FORMAT 3 - BASELINE

EARNED VALUE PERFORMANCE REPORT
FORMAT 3 - BASELINE

1. CONTRACTOR　　　**2. CONTRACT**　　　**3. PROGRAM**　　　**4. REPORT PERIOD**

1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD
NAME		NAME		NAME		a. FROM *(Date)*
LOCATION		NUMBER		PHASE		b. TO *(Date)*
		TYPE	SHARE RATIO			

5. CONTRACT DATA

a. ORIGINAL NEGOTIATED COST	b. NEGOTIATED CONTRACT CHANGES	c. CURRENT NEGOTIATED COST *(a. + b.)*	d. ESTIMATED COST OF AUTHORIZED UNPRICED WORK	e. CONTRACT BUDGET BASE *(c. + d.)*	f. TOTAL ALLOCATED BUDGET	g. DIFFERENCE *(e. - f)*
CONTRACT START DATE	CONTRACT EFFECTIVE DATE		PLANNED COMPLETION DATE	CONTRACT COMPLETION DATE	ESTIMATED COMPLETION DATE	

6. PERFORMANCE DATA

ITEM (1)	PV CUMULATIVE TO DATE (2)	PV FOR REPORT PERIOD (3)	PLANNED VALUE (PV) *(Non-Cumulative)*											UNDISTRIBUTED BUDGET (15)	TOTAL BUDGET (16)
			SIX MONTH FORECAST *(Enter names of months)*						ENTER SPECIFIED PERIODS						
			+1 Period Title (4)	+2 Period Title (5)	+3 Period Title (6)	+4 Period Title (7)	+5 Period Title (8)	+6 Period Title (9)	Period Title (10)	Period Title (11)	Period Title (12)	Period Title (13)	Period Title (14)		
PERFORMANCE MEASUREMENT BASELINE *(Beginning of Period)*															
BASELINE CHANGES AUTHORISED DURING REPORTING PERIOD															
PERFORMANCE MEASURMENT BASELINE *(End of Period)*															
7. MANAGEMENT RESERVE															
8. TOTAL															

Figure 3

EARNED VALUE PERFORMANCE REPORT
FORMAT 4 - STAFFING

EARNED VALUE PERFORMANCE REPORT																
FORMAT 4 - STAFFING																
1. CONTRACTOR				**2. CONTRACT**				**3. PROGRAM**							**4. REPORT PERIOD**	
NAME				NAME				NAME							FROM *(YYYYMMDD)*	
LOCATION				NUMBER				PHASE							TO *(YYYYMMDD)*	
				TYPE		SHARE RATIO										

5. PERFORMANCE DATA

ORGANIZATIONAL CATEGORY	PLANNED CURRENT PERIOD	ACTUAL CURRENT PERIOD	ACTUAL END OF CURRENT PERIOD *(Cumulative)*	FORECAST *(Non-Cumulative)*												AT COMPLETION
				SIX MONTH FORECAST BY MONTH *(Enter names of months)*						ENTER SPECIFIED PERIODS					
				+1 Period Title	+2 Period Title	+3 Period Title	+4 Period Title	+5 Period Title	+6 Period Title	Period Title	Period Title	Period Title	Period Title	Period Title	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]
TOTAL DIRECT															

Figure 4

EARNED VALUE PERFORMANCE REPORT
FORMAT 5 (PART 2) - EXPLANATIONS AND PROBLEM ANALYSIS

EARNED VALUE PERFORMANCE REPORT										
FORMAT 5 - Explanations and Problem Analysis										
1. CONTRACTOR	**2. CONTRACT**		**3. PROJECT/PROGRAM**							**4. REPORT PERIOD**
NAME	NAME		NAME							FROM (Date)
LOCATION	NUMBER		PHASE							
										TO (Date)
	TYPE	SHARE RATIO								
5. Evaluation										
Work Breakdown Structure (code and description of element)										
	PV	EV	AC	SV	SV%	CV		CV%	SPI	CPI
Current:										
Cumulative:										
	BAC	EAC	VAC	VAC%	TCPI to BAC	TCPI to EAC				
At Complete:										
Explanation of Variance/Description of Problem:										
Impact:										
Corrective Action:										
Monthly Summary (to include technical causes of VARs, Impacts) and Corrective Action(s):										
Prepared by:			Date:		Approved by:				Date:	

Figure 5

DATA ITEM DESCRIPTION

1.   **DID NUMBER:**   **DID-PM-TRANS-CTXP-V5.3**

2.   **TITLE:**   **CONTRACTOR TRANSITION PLAN**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The Contractor Transition Plan (CTXP) describes the Contractor's plans, methodologies and processes for meeting the Transition requirements of the Contract, and establishes the ground rules for the transfer of management responsibilities from the developing organisations (ie, Contractor and Subcontractors) to the respective support organisations.

3.2   The Contractor uses the CTXP to:

a.   define, manage and monitor the Contractor's Transition program;

b.   ensure that those parties (including Subcontractors) who are undertaking Transition activities understand their respective responsibilities, the processes to be used, and the time-frames involved;

c.   plan for and coordinate Transition activities with Associated Parties that will provide support for the Materiel System including, when applicable, the Contractor (Support); and

d.   define and establish the Contractor's involvement in the Commonwealth's Transition program.

3.3   The Commonwealth uses the CTXP to:

a.   understand and evaluate the Contractor's approach to meeting the Transition requirements of the Contract;

b.   define and establish the Commonwealth's involvement in the Contractor's Transition program, including the monitoring of the Contractor's program;

c.   enable the timely provision of information to In-Service organisations to allow them to plan for the delivery of the Mission System and the Support Resources; and

d.   provide input to the Commonwealth Representative's own Transition planning.

4.   **INTER-RELATIONSHIPS**

4.1   The CTXP is subordinate to the following data items, where these data items are required under the Contract:

a.   Project Management Plan (PMP).

4.2   The CTXP inter-relates with the following data items, where these data items are required under the Contract:

a.   Australian Industry Capability (AIC) Plan;

b.   other applicable AIC-related plans (eg, Supply Chain Management Plan (SCMP) and Defence-Required Australian Industry Capability (DRAIC) Plan (DRAICP));

c.   System Review Plan (SRP);

d.   Verification and Validation Plan (V&VP);

e.   Contract Master Schedule (CMS);

f.   Support System Description (SSDESC);

g.   Support System Technical Data List (SSTDL);

h.   Australia and New Zealand (ANZ) Subcontractor Technical Data List (ASTDL);

i.   Recommended Spares Provisioning List (RSPL);

j.   Packaging Provisioning List (PACKPL);

k.   Support and Test Equipment (S&TE) Provisioning List (S&TEPL); and

l.   Training Equipment List (TEL).

4.3   When this Contract is linked to a Contract (Support), the CTXP inter-relates with the Contract (Support) Phase In Plan (PHIP) and Ramp Up Management Plan (RUMP).

5.   APPLICABLE DOCUMENTS

5.1   The following document forms a part of this DID to the extent specified herein:

DI-IPSC-81429A   Software Transition Plan (STrP)

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   When the Contract has specified delivery of another data item that contains aspects of the required information, the CTXP shall summarise these aspects and refer to the other data item.

6.1.3   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   General

6.2.1.1 The CTXP shall describe the objectives, scope, constraints, and assumptions associated with the Contractor's (and Subcontractor's) Transition activities. Any risks associated with the Contractor's Transition program shall be documented in the Risk Register; however, the CTXP shall describe the risk management strategies associated with any global, Transition-related risks.

6.2.2   Transition Organisation

6.2.2.1 If different from that described in the PMP, the CTXP shall describe the Contractor's organisational arrangements for Transition, including:

a.   the Contractor's and Approved Subcontractor's organisations and management structures, showing how these arrangements integrate into the higher-level management structures and organisations for the Contract;

b.   the interrelationships and lines of authority between all parties involved in the Contractor's Transition activities; and

c.   the responsibilities of all parties involved in the Contractor's Transition activities, including the identification of the individual who will have managerial responsibility and accountability for meeting the Transition requirements of the Contract.

6.2.3   Transition Overview

6.2.3.1 The CTXP shall provide an overview of the Contractor's program of activities for transitioning from a development and production environment to a support environment for the Supplies, including:

a.   the major activities to be undertaken, when, and by whom;

b.   the integration of Subcontractors into the Contractor's Transition activities;

c.   significant activities of the Transition Working Group (TXWG);

d.   the interfaces between the Transition activities and the Systems Engineering, Verification and Validation, and Integrated Logistics Support programs;

e.   the processes to be employed by the Contractor for undertaking Transition and, if applicable, ramping up to provide support under the Contract (Support);

f. for any new or modified procedures for Transition, an overview of the scope of the new or modified procedures and the responsibilities and timeframes for developing and approving these procedures;

g. if applicable, the Transition activities required to coordinate with the Phase In and Ramp Up activities of the Contractor (Support) and Subcontractors (Support);

h. the expectations of the Contractor with respect to the Commonwealth;

i. the proposed role of the Contractor in assisting the Commonwealth in integrating the Support Resources into the existing Commonwealth infrastructure; and

j. the Contractor's proposed methodology for ensuring that the activities of the Contractor and the Commonwealth are coordinated, including proposed planning and coordination meetings.

6.2.4 Support Responsibilities

6.2.4.1   The CTXP shall identify:

a. each subsystem or component of the Mission System and Support System Component, that is to be supported;

b. the organisations and their support responsibilities for each of the subsystems and components identified under clause 6.2.4.1a, including responsibilities for engineering support, maintenance support, supply support and training support; and

c. the sustainment-related DRAICs and other Industry Capabilities identified as Australian Industry Activities (AIAs), which have been created (in whole or in part), enhanced or maintained within Australian Entities under the Contract, including their relationship to the support of the subsystems and components identified under clause 6.2.4.1a.

6.2.4.2   The information required by clause 6.2.4.1 may be provided as an annex to the CTXP.

6.2.4.3   The identification of components under clause 6.2.4.1a needs sufficient detail to allow each unique set of support responsibilities to be identified in response to clause 6.2.4.1b.

6.2.5 Detailed Transition Activities

6.2.5.1   Using the information derived for clause 6.2.4.1, the CTXP shall detail the Contractor's and Subcontractors' specific activities associated with transitioning from a development and production environment to a support environment for the Supplies, specifically addressing the Contractor's methodology and timeframes for implementing appropriate:

a. engineering support arrangements, including data management and configuration management;

b. maintenance-support arrangements;

c. supply-support arrangements;

d. training and training-support arrangements; and

e. subcontract arrangements.

6.2.5.2   In addressing the requirements of clause 6.2.5.1, the CTXP shall address:

a. the implementation schedule (with this schedule to be included within the CMS);

b. planning and coordination of significant meetings and reviews including, when required under the Contract:

(i) the meetings of the TXWG including, if applicable, the involvement of the Contractor (Support) in applicable Mandated System Reviews; and

(ii) the conduct of the Transition Requirements Review (TXRR);

c. the personnel requirements for both the Contractor and Subcontractors to enable the implementation schedule to be met, including:

(i) the source from which these personnel will be provided; and

>>> (ii) the training to be provided to enable these personnel to undertake their responsibilities during Transition and, if applicable, the Contract (Support);

>> d. the Facilities, S&TE, and computer-support requirements needed by both the Contractor and Subcontractors to facilitate the transfer of Supplies, if not otherwise identified under the Contract;

>> e. if applicable, how the Contractor will coordinate with the Contractor (Support) for the development of the procedures to be employed by the Contractor (Support) and Subcontractors (Support) to enable Transition; and

>> f. any further Transition-related activities required to enable close out of the Contract.

6.2.5.3 In addressing the Transition activities associated with Software, the CTXP shall address the requirements of paragraphs 3-8 of DI-IPSC-81429A.

6.2.5.4 The CTXP shall describe, explicitly or by reference to another document (including any database) that has been delivered to the Commonwealth:

>> a. the items (such as Support Resources, including Technical Data) to be delivered to the respective support organisations and the proposed recipients;

>> b. the delivery, installation and checkout of the support environments being implemented by each of the respective support organisations (ie, Commonwealth, Contractor, Subcontractors, Contractor (Support) and Subcontractors (Support), as applicable, in accordance with the Contract and the Contract (Support));

>> c. the Transition of the sustainment-related DRAICs and other applicable AIAs (including any that have a dual acquisition and sustainment function) as part of establishing the support environment for the Supplies, including any DRAICs or other AIAs that were only partially implemented under the Contract and for which the full implementation is planned to occur under the Contract (Support); and

>> d. the timeframes in which Commonwealth personnel will be required by the Contractor (eg, for Training) to enable the Contractor to successfully Transition the Mission System and other Supplies to the Commonwealth.

6.2.6 Transition Support for Commonwealth Units

6.2.6.1 If the Contract requires the Contractor to provide specialist personnel to directly support the Transition-related activities of Commonwealth units, the CTXP shall:

>> a. outline the range and scope of Transition support activities;

>> b. identify each Commonwealth unit to be supported, the objective or the criteria for completion, and the activities involved;

>> c. for each Contractor and/or Subcontractor person or work team required, identify:

>>> (i) the numbers and skills of the personnel;

>>> (ii) the duration of the support activity for each Commonwealth unit; and

>>> (iii) the work location (eg, on-site with the Commonwealth unit or remote); and

>> d. identify any Training requirements (eg, for Defence information systems).

6.2.7 Transition Register

6.2.7.1 The CTXP shall describe the Transition Register used by the Contractor for recording the Transition activities, tasks, risks and issues.

6.2.7.2 The Transition Register shall be a separate entity from the CTXP (due to the dynamic nature of the content of the Transition Register).

6.2.7.3 The Transition Register shall, for each Transition activity, include:

>> a. a unique activity identification number;

>> b. a brief description of the activity, including reference to any related clauses in the Contract and an outline of the tasks needed to perform the activity;

>> c. the priority of the activity;

d.   details of the individual in the Contractor's organisation responsible for the activity;

e.   details of other parties involved in the activity, including the identification of any Commonwealth parties that are external to the Project Office;

f.   the timeframes for achieving the activity;

g.   the action status of the activity (eg, not started, in progress, completed);

h.   the associated risks, with cross-references to the Risk Register; and

i.   details of any issues to be resolved / action items associated with the activity, including the timeframes for those action items and the party to whom the action items have been assigned.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-V&V-DEF-PV&VRP-V5.3

2.   TITLE: CONTRACTOR'S PREVIOUS V&V RESULTS PACKAGE

3.   DESCRIPTION AND INTENDED USE

3.1   The Contractor's Previous Verification and Validation (V&V) Results Package (PV&VRP) describes the previous V&V activities performed by the Contractor which are relevant to the Materiel System.

3.2   The Contractor uses the PV&VRP to provide, for Approval, details of previously conducted V&V activities that it proposes as precluding the requirement to conduct further specific V&V activities under the Contract. The Contractor will reference this intention in the V&V Plan or the SEMP (whichever is the governing plan for V&V under the Contract) and will cross-reference the details of the Approved PV&VRP in the Verification Cross Reference Matrix (VCRM).

3.3   The Commonwealth uses the PV&VRP to assess whether the Contractor's previous V&V activities are adequate to satisfy all or part of the V&V requirements of the Contract, and as a reference in assessing the suitability of the Supplies for Acceptance.

4.   INTER-RELATIONSHIPS

4.1   The PV&VRP is subordinate to the following data items, where these data items are required under the Contract:

    a.   Systems Engineering Management Plan (SEMP);

    b.   Integrated Support Plan (ISP); and

    c.   Verification & Validation Plan (V&VP).

4.2   The PV&VRP inter-relates with the following data items, where these data items are required under the Contract:

    a.   Verification Cross Reference Matrix (VCRM).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

        Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   Any covering documentation developed by the Contractor for delivery of this data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The V&V documents previously developed by the Contractor and delivered in response to this DID do not have to comply with the format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.2   Specific Content

6.2.1   General

6.2.1.1   The Contractor's PV&VRP shall identify the processes employed by the Contractor for planning, managing, implementing and recording any V&V activities conducted prior to the Contract, where the results of these activities are being used to demonstrate that some of the requirements of the Contract have been met.

6.2.2   Detail

6.2.2.1   The Contractor's PV&VRP shall comprise all V&V documents necessary to demonstrate that some of the specified requirements for the Materiel System are satisfied, including:

      a.   Verification and Validation Plans;

      b.   Verification Cross Reference Matrices;

      c.   Test Plans;

      d.   Test Procedures; and

      e.   Test Results and Reports.

6.2.2.2   The Contractor's PV&VRP shall identify the relationship between the Contractor's previous V&V programs and the V&V requirements of the Contract, and shall describe the rationale for not conducting specific Verification activities.

6.2.2.3   The Contractor's PV&VRP shall identify the relationship between the Test Plans, Procedures, Results and Reports, and the Supplies offered.

6.2.2.4   The Contractor's PV&VRP shall identify and describe deficiencies between the V&V programs previously conducted and the V&V requirements of the Contract.

6.2.2.5   The Contractor's PV&VRP shall be cross-referenced to the V&VP or the SEMP (whichever is the governing plan for V&V under the Contract) and the VCRM for the Contract.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-V&V-DEF-VCRM-V5.3

2.   TITLE: VERIFICATION CROSS REFERENCE MATRIX

3.   DESCRIPTION AND INTENDED USE

3.1   The Verification Cross-Reference Matrix (VCRM) is used to plan, and record the results of, the Contractor's Verification activities.

3.2   The Contractor and the Commonwealth use the VCRM as the basis for common understanding and status of the Verification of requirements for each Mission System and the Support System.

4.   INTER-RELATIONSHIPS

4.1   The VCRM is subordinate to the following data items, where these data items are required under the Contract:

   a.   Verification & Validation Plan (V&VP); and

   b.   Systems Engineering Management Plan (SEMP).

4.2   The VCRM inter-relates with the following data items, where these data items are required under the Contract:

   a.   System Specification (SS) for each Mission System;

   b.   Support System Specification (SSSPEC); and

   c.   Requirements Traceability Matrix (RTM).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

   Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.2   Specific Content

6.2.1   General

6.2.1.1   The VCRM is expected to be an evolving document, which is used during the analysis and design phases of the program to capture agreement on the Verification program, and during the Verification phases to capture the ongoing status of the system with respect to Verification and Validation (V&V).

6.2.1.2   The VCRM is likely to be based in electronic form (eg, database or spreadsheet), but when printed, shall consist of a table with an entry for every requirement in the Functional Baseline(s).

6.2.1.3   The Commonwealth only requires the VCRM in order to manage Verification against the Functional Baseline(s); however, the Contractor may choose to include other levels of specification within the same document. In this case, the VCRM shall:

   a.   identify which entries pertain to the Verification of the Functional Baseline(s); and

   b.   where Verification results from lower levels of the system hierarchy are proposed to be used as evidence for Verification against a Functional Baseline, provide

traceability between the applicable lower levels of the system and the Functional Baseline.

6.2.2   Part 1 Requirements

6.2.2.1   For delivery of the Part 1 VCRM requirements, each entry in the VCRM table shall contain at least:

a.   a unique reference to the corresponding requirement in the Functional Baseline(s);

b.   the requirement words or a brief precis of the requirement to provide context;

c.   the proposed Verification method(s) (ie, one or more of inspection, demonstration, analysis, test, simulation, modelling, experiment, trial, walk-through, comparison, System Review, Audit, historical data and certification of conformance);

d.   the phase during which the requirements will be Verified and the associated Verification method to be applied at this phase; noting that, where Verification across multiple phases may be proposed, the scope and aims of the activities at each phase must be clearly described;

e.   a brief description of the proposed Verification method, intended as a vehicle for early agreement by both parties to define the scope of the Verification activities; and

f.   other comments as required.

6.2.3   Part 2 Requirements

6.2.3.1   For delivery of the Part 2 VCRM requirements, each entry in the VCRM table shall contain at least:

a.   the Part 1 requirements specified at clause 6.2.2 of this DID;

b.   a reference to the specific Verification / test procedure(s) and relevant documentation, including unique version identifiers;

c.   a reference to the report which contains the pertinent Verification results and, as required, data analysis (including any red-line mark-ups and signatures of witnesses to those results);

d.   the progressive status of each phase of the Verification program with respect to the requirement;

e.   a result summary (ie, PASS/FAIL or Verification incomplete if all of the Verification activities associated with the requirement have not been completed); and

f.   other comments as required.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-V&V-MGT-V&VP-V5.3

2.   TITLE: VERIFICATION AND VALIDATION PLAN

3.   DESCRIPTION AND INTENDED USE

3.1   The Verification and Validation Plan (V&VP) documents the Verification and Validation (V&V) program to be implemented by the Contractor to meet the V&V requirements of the Contract.

3.2   The V&VP is used by the Contractor to plan and implement its V&V program.

3.3   The V&VP is used by the Commonwealth Representative to assess the adequacy of, and to monitor the progress of, the Contractor's V&V program, and to identify the Commonwealth's involvement in the program.

4.   INTER-RELATIONSHIPS

4.1   The V&VP is subordinate to the following data items, where these data items are required under the Contract:

     a.   Systems Engineering Management Plan (SEMP); and

     b.   Integrated Support Plan (ISP).

4.2   The V&VP inter-relates with the following data items, where these data items are required under the Contract:

     a.   Verification Cross-Reference Matrix (VCRM);

     b.   Acceptance Test Plans and Procedures;

     c.   Acceptance Test Reports;

     d.   Previous V&V Results Package (PV&VRP); and

     e.   Contract Master Schedule (CMS).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

     Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   Plan Overview

6.2.1.1   The V&VP shall describe the Contractor's V&V strategy, methodology, processes, and sequence of activities for both the Mission System and Support System to meet the following objectives:

     a.   that the design yields the specified performance;

     b.   that fabrication defects, marginal design, marginal parts, and marginal components (if any exist) are detected early in a test sequence;

c.   that activities are sequenced to manage and control the risk that the program's next major V&V activity fails to detect significant design inadequacies before the design is too advanced, and significant resources are needed to solve the problem;

d.   that the elements of the system can survive the environments predicted to be encountered during transportation, handling and field operation;

e.   that the system and all of its sub-elements, as built and assembled, are compatible with each other and are capable of performing the required mission functions;

f.   that the system is characterised by establishing the operating signature of performance through calibration and combination of sub-element performance data; and

g.   to define the basis for Acceptance and delivery of the system.

6.2.2   Organisation and Management

6.2.2.1   The V&VP shall include:

a.   the Contractor's organisation for its V&V program, and the inter-relationships between the V&V organisation and the other parts of the Contractor's organisation for the project;

b.   the Contractor's procedures for coordinating its V&V program with its system engineering and logistic engineering efforts to ensure that its Mission System design has due regard for through life support;

c.   the Contractor's procedures for coordinating its V&V program with its Integrated Logistic Support (ILS) efforts to ensure an effective Support System design;

d.   a discussion of how the unique skills and experience of the various groups involved in the V&V program are arranged to provide continuity of V&V effort;

e.   the Contractor's V&V program work breakdown structure and schedule, describing how the schedule supports the achievement of the CMS;

f.   the Contractor's procedures for monitoring, evaluating, and controlling the status of V&V tasks and achievement of the V&V schedules; and

g.   the Contractor and Commonwealth resources (eg, human, machine, and platforms) anticipated being required at the various stages of the V&V program.

6.2.2.2   The V&VP shall refer to the VCRM for both the Mission System and Support System that, for each requirement of each system's Functional Baseline, identifies the method and stage of the V&V program at which compliance will be verified.

6.2.2.3   Where the Contractor proposes to claim previous Verification results as precluding the need for specific Verification activities within the V&V program, the V&VP shall summarise:

a.   the scope and context of the previous Verification activities;

b.   the reasons why the previous results preclude the need for further specific Verification activities, including how the previous results are valid for the configuration of the Supplies, and the intended operational role and environment described in the FPS and OCD; and

c.   how the previous Verification results, delivered in a Contractor's PV&VRP, will be integrated into the planned Verification activities and the VCRM.

6.2.3   Flow Diagram

6.2.3.1   The V&VP shall include an overall flow diagram of the V&V and deployment program for both the Mission System and the Support System. This flow shall be sequentially arranged to include:

a.   all significant V&V milestones and efforts in the development phase associated with each class of V&V;

b.   hardware and software integration schedules;

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c.　　requirements for V&V concurrency;

d.　　the contractor or group responsible for each V&V event; and

e.　　any additional information that clarifies the description of the V&V program.

6.2.3.2　　The flow diagram shall reflect predicted dates for significant milestones.

6.2.4　　**V&V Objectives**

6.2.4.1　　The V&VP shall specify the broad objective for each V&V phase for both the Mission System and the Support System. Objectives shall be specified in terms of verifying part or all of system or lower level specifications (eg, subsystem specifications). It is important that the V&VP support a unified set of objectives for the entire V&V program, so that redundant activities are eliminated and the program can evolve smoothly through each succeeding phase.

6.2.5　　**V&V Support Requirements**

6.2.5.1　　The V&VP shall identify and describe all significant technical and logistic support required to implement each V&V phase for both the Mission System and the Support System. These requirements should be expressed in sufficient detail to permit a determination of whether the Commonwealth has the capability to support the phase. In addition, the V&VP shall identify the following major requirements for each V&V phase:

a.　　any special test equipment and equipment requiring long lead times to develop or procure;

b.　　logistics requirements, including supply, maintenance and transportation;

c.　　the major and special facilities required to support the V&V effort, including simulation requirements, Commonwealth facilities, environmental test facilities, and plans for validating that facility interfaces and support documentation are both realistic and compliant with design documentation;

d.　　requirements for supporting computer equipment for data reduction, analysis or conduct of V&V; and

e.　　the proposed method and any activities required for Validation of the test environment and test equipment.

6.2.6　　**Special Testing**

6.2.6.1　　The V&VP shall provide details of any special or unusual tests or examinations necessary as part of the V&V program.

6.2.7　　**Developmental V&V**

6.2.7.1　　The V&VP shall define the conduct of lower-level developmental V&V activities for both the Mission System and Support System to be conducted by the Contractor but not used as part of formal Acceptance V&V.

6.2.8　　**Documentation**

6.2.8.1　　The V&VP shall identify documentation requirements for each phase of the V&V program for both the Mission System and the Support System. It shall describe generation and approval processes, document change and revision control, and the interdependence between the engineering and V&V documentation.

6.2.8.2　　The V&VP shall define the scope and purpose of subordinate plans and their interrelationship with each other and the V&VP.

6.2.9　　**V&V Configurations**

6.2.9.1　　The V&VP shall provide details of the expected configurations of the system or system components for both the Mission System and the Support System during the V&V program. The V&VP shall also show how the system configuration will be managed through the V&V phases to ensure that Acceptance V&V will be conducted on equipment that is of the same hardware and software configuration as will be offered for Acceptance.

6.2.10   Failure and Corrective Action Management

6.2.10.1   The V&VP shall describe the Problem Resolution System used for the collection of Failure data for both the Mission System and the Support System (including that of Subcontractors) and shall identify when it will be established.

6.2.10.2   The V&VP shall identify the process used to analyse Failure data and track the corrective action taken as a result of a Failure, and the interaction with the engineering development groups, logistic organisation, Subcontractors and the Commonwealth.

6.2.10.3   The V&VP shall identify how regression testing for both the Mission System and the Support System will be managed, following a test failure or design change, throughout the V&V program.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-V&V-TST-ATPLAN-V5.3

2.   TITLE: ACCEPTANCE TEST PLAN

3.   DESCRIPTION AND INTENDED USE

3.1   An Acceptance Test Plan (ATP) describes the organisation, schedules including sequence and interdependence, responsibility, procedures and other details that are necessary for the conduct of a set of Acceptance Test Procedures (ATProcs) for specific segments or phases within the overall test program.

3.2   The Contractor uses the ATP to:

a.   define, manage and monitor the plans for conducting specific segments or phases of the overall test program; and

b.   ensure that those parties (including Subcontractors) who are undertaking Acceptance testing activities understand their respective responsibilities, the processes to be used, and the time-frames involved.

3.3   The Commonwealth uses the ATP to:

a.   understand and evaluate the Contractor's approach to meeting the Acceptance testing requirements of the Contract;

b.   assist with monitoring the Acceptance testing activities; and

c.   provide input to the Commonwealth Representative's planning for Commonwealth involvement in Acceptance testing activities.

4.   INTER-RELATIONSHIPS

4.1   The ATP is subordinate to the following data items, where these data items are required under the Contract:

a.   Verification & Validation Plan (V&VP).

4.2   The ATP inter-relates with the following data items, where these data items are required under the Contract:

a.   Verification Cross-Reference Matrix (VCRM);

b.   Acceptance Test Procedures (ATProcs); and

c.   Acceptance Test Reports (ATRs).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   General

6.2.1.1   The ATP shall be consistent with the V&VP.

6.2.2   Detailed Requirements

6.2.2.1   The ATP shall separately identify each requirement, and in respect to each requirement:

a.   describe the scope of the test;

b.   provide a summary description of the test, including the organisation(s) involved in the test and the responsibilities of key individuals;

c.   reference the VCRM entries that detail which requirements are being tested, and whether Verification of a requirement or Validation will be established by test, demonstration, inspection, analysis, simulation, modelling, experiment, audit, walk-through, documentation review, comparison, historical data, compliance certificate, or other means;

d.   describe a list of all test cases including the sequence of these test cases;

e.   provide a description of the test article, including test configuration identification;

f.   detail system configuration and initial conditions for test;

g.   identify any limitations, assumptions and constraints associated with the V&V activity, including any measurements that need to be taken at the time of the V&V activity to record uncontrollable conditions (eg, ambient temperature);

h.   identify any location or environmental considerations for the conduct of the V&V activities;

i.   state the means, or combination of means, which will be used to Verify compliance with the requirement, for example, stand-alone system, integration test;

j.   identify, with respect to the means stated in subclause i above, whether the Verification of the requirement will be fully established by either a discrete test, as part of a test of the complete functioning system, or both;

k.   identify the precursor test activities, if any, and the immediate successor test activities covered by a separate ATP (if applicable);

l.   identify the subordinate test procedures that describe the test steps for each test case listed in the ATP;

m.   include a list of parameters to be tested or measured and the means by which the system will be measured with respect to these parameters (including, if applicable, any data analysis processes required for evaluation); and

n.   detail test equipment and documentation required for the conduct of the V&V activity, including details of whether the test organisations, facilities and equipment involved are to be appropriately certified (eg, against and applicable standard) and appropriately calibrated.

6.2.2.2   The ATP shall define the procedures to be undertaken when a test result indicates that the test article has failed, and to provide traceability of any investigation or technical follow-up, corrective actions, and retest / regression testing, to maintain the integrity of the final results and reports.

6.2.2.3   The ATP shall list those ATProcs and Acceptance Test Reports (ATRs) that are generated by the ATP.

6.2.2.4   The ATP shall define the test resources necessary to support the conduct of the test activities within the scope of the ATP.

6.2.2.5   The ATP shall reference the VCRM that provides traceability of each requirement to test item and test procedures that will Verify and Validate satisfactory compliance.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-V&V-TST-ATPROC-V5.3

2.   TITLE: ACCEPTANCE TEST PROCEDURE

3.   DESCRIPTION AND INTENDED USE

3.1   Acceptance Test Procedures (ATProcs) are produced for each test activity, or group of activities to detail the procedures, developed by the Contractor, which are to be used in confirming that the complete system requirements for the Mission System and Support System have been met.

3.2   The Contractor uses the ATProc to:

a.   define, manage and monitor the procedures for conducting specific elements of the test program; and

b.   ensure that those parties (including Subcontractors), who are undertaking Acceptance testing activities, understand their respective responsibilities, the processes to be used, and the time-frames involved.

3.3   The Commonwealth uses the ATProc to:

a.   understand and evaluate the Contractor's approach to meeting the Acceptance testing requirements of the Contract; and

b.   assist with monitoring the Acceptance testing activities.

4.   INTER-RELATIONSHIPS

4.1   The ATProc is subordinate to the following data items, where these data items are required under the Contract:

a.   Acceptance Test Plan (ATP).

4.2   The ATProc inter-relates with the following data items, where these data items are required under the Contract:

a.   Verification Cross-Reference Matrix (VCRM); and

b.   Acceptance Test Report (ATR).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   The ATProc shall include:

a.   a description of the scope of the test, including a test method, which shall provide a general description of the test activity;

b.   a description of the configuration of the item(s) under test and initial conditions for test, including any preparatory requirements or other pre-test activities;

    c.   a description of the test equipment (including the configuration of test equipment), documentation (including details of calibration and certification of test equipment if required), venue and personnel required for the conduct of the test;

    d.   all safety precautions necessary for the performance of the test procedure;

    e.   a description of any data inputs or data files required for the conduct of the test; and

    f.   step by step procedures for the performance of the test in sufficient detail to identify every action necessary for the conduct of the test, including:

        (i)   pre-test actions;

        (ii)   any notes, cautions or warnings that are necessary at each stage of the test procedure;

        (iii)   required operator test input;

        (iv)   expected outcomes or results;

        (v)   space for recording actual results;

        (vi)   space for comments;

        (vii)   a block for sign off signatures for all parties present at the test;

        (viii) a space for recording the configuration of the item(s) under test, including all major hardware and software Configuration Items;

        (ix)   a space for recording all test equipment utilised and the calibration date of the equipment;

        (x)   if applicable, a space for recording details of test-recording media that will support test analysis; and

        (xi)   a space for recording any post-test actions.

Note: Ideally, test procedures should be modular where possible, in order to permit a failed test activity to be repeated without repeating other parts of the test.

6.2.2   In conjunction with each test step, the test procedure shall define what measurements, readings, or observations are required for a correct response. As part of the test assessment data, PASS/FAIL criteria or the expected qualitative or quantitative result shall also be defined. Where a quantitative result is declared, this shall include the allowable tolerance. Where a qualitative result is declared, this shall include a description of the expected results of the test.

DATA ITEM DESCRIPTION

1.   DID NUMBER: DID-V&V-TST-ATREP-V5.3

2.   TITLE: ACCEPTANCE TEST REPORT

3.   DESCRIPTION AND INTENDED USE

3.1   Acceptance Test Reports (ATRs) are be used to document the results of the system test activity.   In particular, ATRs formally document the results, conclusions and recommendations of testing conducted according to the V&VP, associated Acceptance Test Plans (ATPs), and associated Acceptance Test Procedures (ATProcs).

3.2   The Contractor uses the ATR to:

   a.   record the outcome of V&V activities, and to determine any corrective action required; and

   b.   inform the Commonwealth of the outcome of the relevant V&V activities in support of offering Supplies for Acceptance.

3.3   The Commonwealth uses the ATR to:

   a.   support considerations on the suitability of Supplies offered for Acceptance; and

   b.   assist with monitoring the performance of the Contractor.

4.   INTER-RELATIONSHIPS

4.1   The ATR is subordinate to the following data items, where these data items are required under the Contract:

   a.   Verification & Validation Plan (V&VP).

4.2   The ATR inter-relates with the following data items, where these data items are required under the Contract:

   a.   ATPs; and

   b.   ATProcs.

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

      Nil.

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   The ATR shall identify the component, equipment or system that was tested and briefly describe the tests conducted making reference to applicable documents, including ATPs and ATProcs, as required.   Terms, abbreviations, symbols and documents referenced in the ATR shall be defined.

6.2.2   The ATR shall define the general conditions under which the test was conducted including:

   a.   **Test Personnel.**   The ATR shall identify, by name and position, all personnel involved in the conduct and supervision of the Acceptance Test.   Where applicable, the role of each participant should be identified;

b. **Description of the Item Under Test.** The ATR shall uniquely identify (by serial number or similar) the component, equipment or system subject to Acceptance Testing, including a description of its configuration status (modification/revision status);

c. **Description of Test Equipment.** The ATR shall uniquely identify all test equipment used including equipment serial numbers. Where applicable, this description shall state where and when the equipment was last calibrated;

d. **Data Reduction/Post Processing.** The ATR shall describe any additional equipment and software used to process data collected during the test including unique serial number / version information; and

e. **General Conditions.** The ATR shall describe any other general conditions that are considered to have had an influence on the conduct or results of the test.

6.2.3 The ATR shall detail the test set-up and method by reference to the applicable ATProc. Any departures from the test set-up or method of the ATProc shall be detailed and justified.

6.2.4 The ATR shall incorporate all relevant information concerning the test, including the procedure or reference thereto. The ATR shall incorporate a copy, or reference to, the 'as-run' test procedure, the original of which shall remain in a record file along with the test log.

6.2.5 The ATR shall include the names of Commonwealth representative(s) who witnessed the Verification activities, or reference to the authority given to conduct Verification activities without a Commonwealth presence.

6.2.6 The ATR shall discuss the test results obtained and document the results of the test in tabular form. Where appropriate results may also be represented in graphical or diagrammatical form in the ATR. All tables and graphs shall be numbered, titled and dimensioned (with units). Raw results/measurements shall be recorded on the data sheets provided in the ATProc, signed by Commonwealth representative and Contractor participants to the tests, and should be provided as attachments to the ATR.

6.2.7 Data generated by data reduction/post processing techniques shall also be presented in the ATR as attachments.

6.2.8 All anomalies, failures and out-of-tolerance conditions shall be recorded and explained.

6.2.9 Where calculations are applied to test measurements, these equations are to be shown.

6.2.10 The ATR shall detail conclusions and provide a summary of the test results. The conclusions shall include an assessment of the success, or otherwise, of the test in substantiating the associated requirements.

6.2.11 When a test fails to fully verify compliance with the associated requirement, the ATR shall recommend further action, such as redesign and retest.

6.2.12 The ATR shall include certification that the test results and any attachments, including data sheets, computer printouts, photographs, etc., are authentic, accurate, current, and in accordance with the associated ATP and ATProc.

TENDER DATA ITEM DESCRIPTION

1.   DID NUMBER: TDID-ENG-SOL-CSAI-V5.3

2.   TITLE: CYBER SECURITY ASSESSMENT INFORMATION

3.   DESCRIPTION AND INTENDED USE

3.1   The Cyber Security Assessment Information (CSAI) provides the necessary security information in relation to the tendered Mission System solution (**'System Solution'**) to enable the Commonwealth to:

a.   judge the cyber-security risks and vulnerabilities associated with the System Solution, including when integrated into, or with, other system(s) and equipment;

b.   review the tenderer's approach to security-in-design for the System Solution for the purposes of Information and Communications Technology (ICT) security and cyber security; and

c.   meet its security obligations under both Defence and Government policy requirements, including as required by the respective security authorities.

3.2   The tenderer uses the CSAI to provide the necessary information required by the Commonwealth for the purposes of ICT and cyber security, as set out in clause 3.1. It is expected the tenderer will utilise the CSAI as the starting point for development of security deliverables under any resultant Contract.

3.3   The Commonwealth uses the CSAI:

a.   to assess whether the System Solution addresses the cyber threats to Defence operations and system integrity set out in the draft Contract;

b.   to understand any required changes to existing components of the System Solution or to a system into which the System Solution will be installed/integrated to address ICT and/or cyber security risks arising out of the use of the System Solution; and

c.   as the basis for understanding the ICT and cyber risks associated with the System Solution.

4.   INTER-RELATIONSHIPS

4.1   The CSAI inter-relates with the other tender data requirements in Annex G to Attachment A of the Conditions Of Tender (COT).

5.   APPLICABLE DOCUMENTS

5.1   The following documents form a part of this DID to the extent specified herein:

Governing Security Documents	(see the Glossary for the definition of this term)
NIST SP 800-53A	Assessing Security and Privacy Controls in Information Systems and Organizations, Revision 5, January 2022
ISA/IEC 62443 series	Security for Industrial Automation and Control Systems
NIST CSF 2.0	National Institute of Standards and Technology (NIST) Cybersecurity Framework (CSF), Version 2.0, February 26, 2024
	CASG Risk Management Product Risk Matrix

6.   PREPARATION INSTRUCTIONS

6.1   Generic Format and Content

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled 'General Requirements for Data Items'.

6.1.2   The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

6.2   Specific Content

6.2.1   System Solution Design Information

6.2.1.1   The CSAI shall provide a general description of the System Solution, including its overall mission and capabilities, both functional and non-functional from a security perspective. This general description shall also identify the external systems to which the System Solution interfaces, including providing a brief description of the purpose of the interactions between the System Solution and each external system.

6.2.1.2   If known by the tenderer, the CSAI shall include a brief (one to three paragraphs) general description of the security environment that the System Solution operates within, including the context of that environment on a location basis (eg, when the System Solution is part of a larger system). This description shall include any environmental or technical factors that raise special security concerns.

6.2.1.3   For each of the interfaces to external systems, the CSAI shall describe the technical implementation of the data flows between the System Solution and the external systems, including where data is stored and transiting to, protocols, and what protection the data is given. This information only needs to be provided from the perspective of the System Solution.

6.2.1.4   The CSAI shall identify and describe the component subsystems of the System Solution, including:

     a.   internal network interface diagram(s);

     b.   System Solution block diagram(s);

     c.   internal System Solution interface block diagram(s); and

     d.   system / software architecture diagram(s).

6.2.2   Security Controls

6.2.2.1   The CSAI shall describe the security controls implemented by the System Solution, including reference to the security controls from the ISM, DSPF and other applicable standards (eg, ISA/IEC 62443 or NIST 800-53A for Operational Technology Equipment) that are, and are not, applicable to security for the System Solution and the associated rationale for this assessment. This description shall address the controls applicable during System Solution build, operations and support to ensure the confidentiality, integrity and availability of data and information processed, stored and/or communicated by the System Solution.

6.2.2.2   The CSAI shall:

     a.   identify the eight mitigation strategies from the Essential Eight Maturity Model;

     b.   identify the assessed maturity level for the System Solution against each of these strategies; and

     c.   provide the associated justification for this assessment.

6.2.3   Security Risk Assessment

6.2.3.1   The CSAI shall include a security risk assessment for the System Solution, which shall be undertaken in accordance with the risk management processes set out in the tendered deliverables (eg, PMP and/or SSMP) and using the consequence and likelihood descriptors for Security and Cyber from the CASG Risk Management Product Risk Matrix.

6.2.3.2   The CSAI shall address security risks in relation to:

      a.   confidentiality, integrity and availability of systems and data; and

      b.   the cybersecurity functions of Identify, Protect, Detect, Respond and Recover (as these terms are defined in NIST CSF 2.0).

6.2.3.3   The CSAI shall include the following information for each security risk:

      a.   title and unique identifier;

      b.   brief description, including threat type, likely source and characteristics;

      c.   asset(s) affected (ie, which subsystems are vulnerable to the threat);

      d.   overview (ie, a short description of how the threat sources and assets link to the threat for the System Solution);

      e.   likelihood of occurrence;

      f.   consequence of realisation in terms of confidentiality, integrity and availability of information, and the impacts of these three on the mission, safe operation of the Mission System, information security, or some other function or combination of functions;

      g.   existing controls;

      h.   resultant risk exposure;

      i.   treatment option (ie, acceptance, reduction, transfer or avoidance);

      j.   treatment owner;

      k.   treatment recommendation(s);

      l.   residual likelihood of occurrence;

      m.   residual consequence of realisation; and

      n.   residual risk exposure.

6.2.3.4   The CSAI shall include an aggregate or summary of the overall security risk for the System Solution.

TENDER DATA ITEM DESCRIPTION

1.   **DID NAME:**   **TDID-FIN-LCC-TLCCM-V5.3**

2.   **TITLE:**   **TENDER LIFE CYCLE COST MODEL (TLCCM)**

3.   **DESCRIPTION AND INTENDED USE**

3.1   The Tender Life Cycle Cost Model (TLCCM) provides:

      a.   the details associated with the tendered Life Cycle Cost (LCC) model, and

      b.   the data files for the LCC model.

3.2   The Commonwealth will use the TLCCM to evaluate the total cost of ownership and associated LCC risks and drivers for the tenderer's proposed solutions for the Mission System and Support System.

4.   **INTER-RELATIONSHIPS**

4.1   The TLCCM inter-relates with other tender data requirements, including:

      a.   Financial (Annex D);

      b.   Project Strategies and Experience (Annex E); and

      c.   Solution Description (Annex F).

5.   **APPLICABLE DOCUMENTS**

      Nil.

6.   **PREPARATION INSTRUCTIONS**

6.1   **Generic Format and Content**

6.1.1   The data item shall comply with the general format, content and preparation instructions contained in the Draft CDRL clause entitled 'General Requirements for Data Items'.

6.2   **Specific Content**

6.2.1   **General**

6.2.1.1   The TLCCM shall provide sufficient detail to enable the Commonwealth to understand the LCC model developed by the tenderer.

> *Note to drafters: The software tool or software, which the tenderer is required to utilise to develop its LCC Model, needs to be inserted into the following clause.*

6.2.1.2   The LCC data files shall be in a format required by the selected LCC software package.

6.2.1.3   The content of the LCC data files shall be as tailored at annex A to this TDID.

6.2.2   **LCC Model Development**

6.2.2.1   The TLCCM shall describe the LCC model that has been developed by the tenderer as part of its tender response, including:

      a.   definitions of all terms, acronyms, and model parameters used;

      b.   any assumptions underpinning, or limitations with, the LCC model, including:

          (i)   the scope of the Mission System that has been modelled, including the indenture level of the physical build structure for the Mission System;

          (ii)   the modelling of the operational concepts and the Life-of-Type (LOT) for the Mission System (as documented in the Operational Concept Document (OCD));

          (iii)   the modelling of Software life-cycle costs; and

        (iv)   the modelling of the Support System; and

   c.   the input data used to build the LCC model, including:

        (i)   the source of the data;

        (ii)   the date that the data was first generated;

        (iii)   if the data is an estimate, the nature of the estimate;

        (iv)   the source currency of the cost data and the exchange rates utilised to bring the cost data into a common currency;

        (v)   the base year of each cost element and the factors utilised to bring each cost element into a common base year; and

        (vi)   the justification for the use of the data. Examples of the data that should be justified include cost data, Turn-Around Time (TAT) data, Administration and Logistics Delay Time (ALDT) data, and reliability and maintainability data.

6.2.3   LCC Analysis and Recommendations

6.2.3.1   The TLCCM shall describe the outcomes of LCC analysis activities that have been undertaken by the tenderer, including details of:

   a.   the LCC drivers that have been identified, and

   b.   the analyses of these LCC drivers that have been undertaken.

6.2.3.2   The TLCCM shall describe any proposed alternatives for either the Mission System or the Support System (or both) that:

   a.   address the identified LCC drivers; or

   b.   reduce LCC.

These alternatives may be presented as Tenderer Initiated Options (TIOs) if a change to the tendered price is involved; however, the financial information associated with these TIOs shall be provided in the Financial Volume of the tender response.

Note to tenderers: The intent of the preceding clause is to capture those alternatives that could increase the Contract price or the Contract (Support) price (or both), but which reduce the overall LCC. The Commonwealth envisages that, where the tenderer is selected to participate in refining its offer, the alternatives identified by the tenderer will be addressed in consultation with the Commonwealth to enable any agreed alternatives to be included in a resultant Contract.

6.2.4   LCC Model

6.2.4.1   The TLCCM shall include the LCC data files for the LCC model in a form that does not require the Commonwealth to separately key the LCC data into the LCC modelling software specified in clause 6.2.1.2 of this TDID.

Annex:

Project-specific LCC Model Requirements

ANNEX A TO TDID-FIN-LCC-TLCCM-V5.3

PROJECT-SPECIFIC LCC MODEL REQUIREMENTS

Note to drafters: This section should detail any requirements, including project-specific definitions and default parameters, which each tenderer is to utilise in developing its LCC Model. In general, this annex should specify requirements with respect to each parameter in the tool or software used to compile the LCC Model), such that the Commonwealth can undertake an 'apples-to-apples' tender evaluation of LCC.