DATA ITEM DESCRIPTION

1. DID NUMBER: DID-ENG-MGT-HEPP-V5.3
2. TITLE: Human Engineering Program Plan
3. DESCRIPTION and intended use

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.

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

The Commonwealth uses the HEPP:

to provide visibility into the Contractor's technical planning;

for progress and risk assessment purposes; and

to provide input into the Commonwealth's own planning.

1. INTER-RELATIONSHIPS

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

Systems Engineering Management Plan (SEMP);

Integrated Support Plan (ISP);

Configuration Management Plan (CMP); and

Verification and Validation Plan (V&VP).

1. Applicable Documents

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

|  |  |
| --- | --- |
| 1. MIL-STD-1472G | 1. Human Engineering |
| 1. MIL-HDBK-46855A | 1. Human Engineering Program, Process and Procedures |

1. Preparation Instructions
   1. Generic Format and Content

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

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.

* 1. Specific Content
     1. Tailoring of Applicable Standards

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.

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.

* + 1. Organisation

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.

* + 1. Human Engineering Strategy

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

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

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

* + 1. Human Engineering in Subcontractor Efforts

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

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

* + 1. Expectations of the Contractor

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

* + 1. Human Engineering in System Analysis

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.

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.

* + 1. Human Engineering in Equipment Design

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.

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

* + 1. Human Engineering in Equipment Procedure Development

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

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

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

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

* + 1. Derivation of Personnel and Training Requirements

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.

* + 1. Human Engineering in Verification and Validation

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

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.

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.

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

* + 1. Human Engineering Working Group

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

objectives and the terms of reference for the HEWG;

the membership and points of contact for the HEWG; and

arrangements for the conduct of HEWG meetings.