Australian Government
Defence

Maritime Sustainment Division

Surface Ship Sustainment in Australia

Factsheet | January 2025

Sustainment of all surface fleet assets is co-led by the customer, such as the Royal Australian Navy (RAN) as the Capability Manager and Naval Shipbuilding and Sustainment Group (NSSG) as the Delivery Manager. In-service support and through-life management of the assets is conducted by Maritime Sustainment Division (MSD) within NSSG. MSD provides support for all in-service assets after delivery from acquisition programs. The formal handover of responsibility from the acquisition division (also within NSSG) generally occurs at the point of acceptance into service by the customer, defined as Initial Operating Release or Initial Operating Capability.

Although MSD's focus is on sustainment, it is also a contributor to those earlier acquisition activities through supporting the development of support requirements, participation in evaluations, acceptance of assets, and advice on the industrial complex and suppliers required to support assets through-life. MSD is also the industry lead (Fundamental Input to Capability) performing the role of Commonwealth (CoA) acceptance of the readiness of the industrial ecosystem (industry capability, capacity, infrastructure) on behalf of the CoA. It is the principal advisor on Integrated Logistics Support (ILS), covering all deliverable ILS products. During the operational life of the assets, MSD is responsible for the through-life management of all functions including upkeep, update and upgrade of the platform systems.

Geographic Disposition of Surface Ship Sustainment

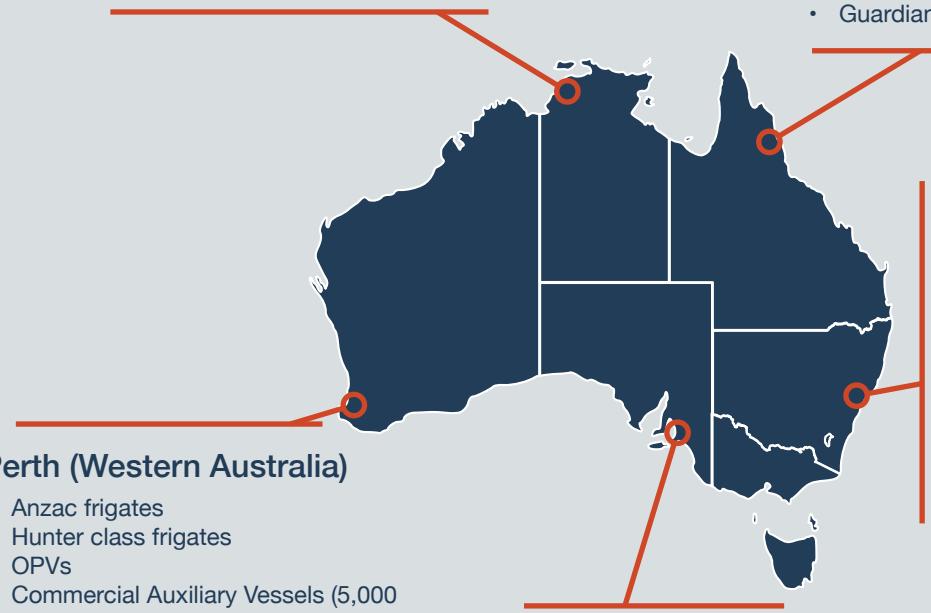
MSD and its workforce are primarily located with or close to the assets' operational locations as shown graphically below:

Darwin (Northern Territory)

- Armidale and Cape classes
- Arafura class offshore patrol vessels (OPVs)
- General Purpose Frigates

Cairns (Queensland)

- Hydrographic Ships and Army Marine
- Patrol Boats (OPV and Cape class)
- General Purpose Frigates
- Commercial Vessels
- Guardian class patrol boats



Sydney (New South Wales)

- Hobart class destroyers
- Hunter class frigates
- Oilers (HMAS *Stalwart and Supply*)
- Mine Warfare, Diving and Hyperbarics
- Landing Ship Dock (HMAS *Choules*)
- Commercial Auxiliary Fleet (4,000 - 12,000t)
- Cross Engineering and Logistics support functions
- Landing Helicopter Docks (LHDs)
- General Purpose Frigates

Perth (Western Australia)

- Anzac frigates
- Hunter class frigates
- OPVs
- Commercial Auxiliary Vessels (5,000 - 9,000t)
- General Purpose Frigates

Osborne (South Australia)

- Upgrade Facility (Hobart class destroyers)

Figure 1: Disposition of Maritime Sustainment in Australia

Sustainment Workforce

MSD comprises an integrated workforce consisting of Australian Defence Force (ADF), Australian Public Service (APS) and Industry. MSD is heavily reliant on contracted labour to deliver the majority of external-based functions (shore-based), with CoA staff providing the management, assurance, and governance functions of the business. The general workforce composition for ship sustainment in Australia comprises approximately:

Above the line contractors are responsible for strategic roles such as ship design and project supervision, as opposed to below the line contractors, which handle operational duties including shipbuilding and maintenance, ensuring the practical execution of maritime projects.

Sustainment Governance and Outcomes

Management and oversight of ship sustainment is a collaborative endeavour between customers including the RAN and NSSG, formalised in agreements between the two parties.

These agreements capture core sustainment requirements across all assets, as well as asset-specific requirements, delivery schedules, performance standards, and costs. They are subject to regular (twice yearly) reviews to ensure sustainment activities delivered by NSSG continue to align with RAN strategic priorities.

In general, the RAN seeks three sustainment outputs from NSSG:

Materiel Availability	Sustainment Efficiency	Materiel Confidence
The provision of assets for customer use, at their agreed specification and configuration baseline, which are seaworthy and deliver the required Materiel Ready Days. Materiel Availability is enabled via preventative and corrective maintenance.	Both the use of funds available and the actions to improve cost-effective use of those funds.	Contributes to seaworthiness through actions to ensure the assets will remain available at their agreed rate of performance specification through the life of the assets.

The key categories of sustainment services provided by NSSG to support these outputs include:

- Configuration Management. (Ensuring the through-life configuration of the asset is maintained, including the management and operation of the configuration tools (Information Technology), and the assurance of industry delivery).
- Engineering Management. (This includes Integrated Logistic Support services).
- Maintenance Management.
- Supply Support. (Procurement of inventory to support the asset).
- Asset Management. (Asset performance, optimisation, and cost of ownership functions).
- Industry and supply chain functions.

Ship Modernisation and Upgrade

Large, complex modernisations and upgrades of in-service RAN platforms are managed and delivered by NSSG. Maritime Integrated Warfare Systems, a separate branch within NSSG, leads the development of combat systems, and MSD performs the lead role of platform systems integration and whole ship management functions.

MSD acts as the Program Management Office responsible for the overall delivery of the activity and of the ship through design, production and hand-back to Navy.

This is a collaborative program of work supported by other NSSG divisions and various individual projects. This approach aligns the in-service requirements and workforce capabilities with the upgrade program to ensure the best balance of capability and operational fleet objectives. These projects are predominantly delivered in Sydney, Perth and Osborne, where the large industrial infrastructure and Industry workforce reside.

NSSG has established a range of commercial arrangements to provide these services to the RAN (see below). However, where NSSG has the resources to do so, it may provide those services internally.

The Maritime Sustainment Model

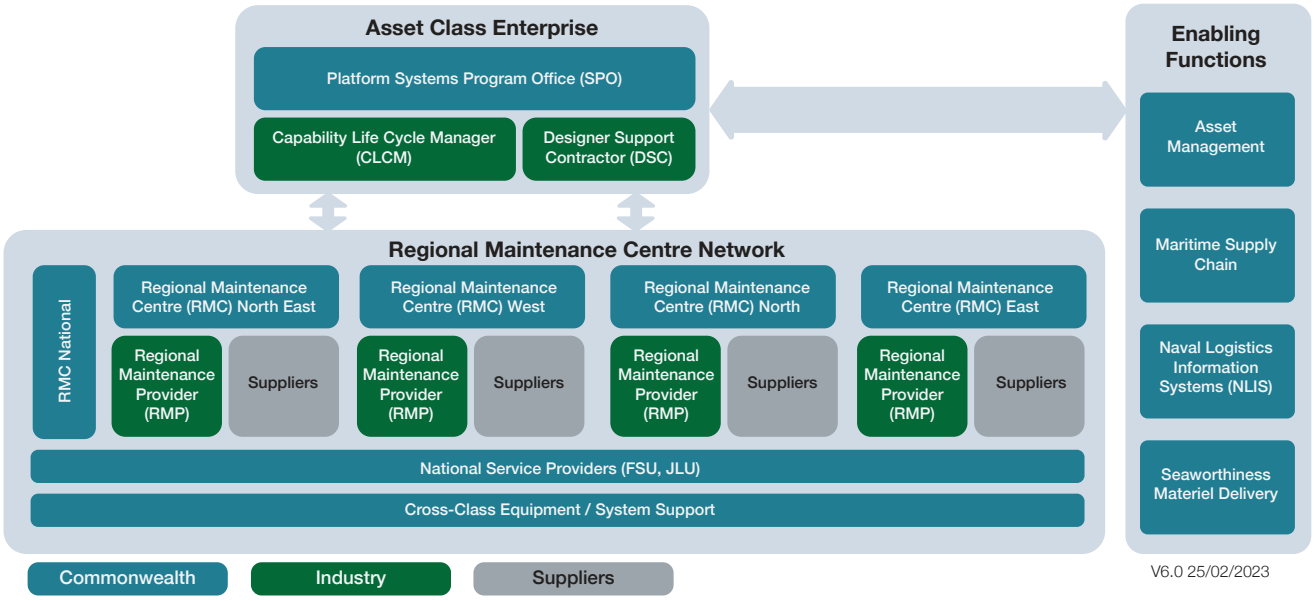
MSD has been evolving maritime sustainment through Plan Galileo since 2019 with implementation of the Maritime Sustainment Model (MSM) in response to three strategic challenges: Continuous naval shipbuilding, the increasing size and complexity of the fleet, and the changing strategic environment. MSD is transitioning from a platform-based delivery structure to a model providing consolidated Asset Class Enterprises (ACE) focused on through-life support and regionally based, class-agnostic maintenance centres (RMCs).
See Figure 2.

It provides complete capability life-cycle management of each class from before an asset is brought into service, through transition, and then throughout its operational life, upgrade and disposal – maximising capability at sea for the customer. It enables asset classes to be maintained at locations across Australia and closer to operations.

The MSM provides standardisation and value for money and efficiency to the CoA by:

- Building the CoA as an informed owner so it can optimise sustainment, upgrades, and maintain a viable CoA workforce;
- Improving safety outcomes through standardisation and simplification of safety management processes and procedures;
- Standardising and streamlining contracts, systems, ICT tools, processes and procedures to remove duplication and reduce administration;
- Improving coordination and utilisation of resources, and;
- Providing Industry with clearer, longer-term demand signals and reducing barriers to entry for Small and Medium Enterprises.

Figure 2: The Maritime Sustainment Model



Asset Class Enterprises

ACEs (Figure 3) are led by a Systems Program Office (SPO) made up of CoA personnel, and supported by an industry Capability Life Cycle Manager (CLCM) and Designer Support Contractor (DSC). The ACE collectively focuses on class specific asset management. ACEs have a direct relationship with individual RMCs for planning and assurance of maintenance activities including the flow of Technical Data required to perform maintenance.

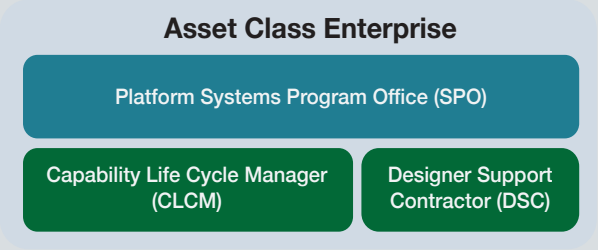


Figure 3: The Asset Class Enterprise

The ACE, through the platform SPO for the specific asset class, is accountable for through-life asset stewardship and providing seaworthy vessels to Navy in a consistent, and predictably affordable manner.

Systems Program Offices

SPOs are the CoA organisation responsible for delivering the sustainment outputs for each surface fleet class to the customer. Some SPOs support only a single class vessel, whilst other SPOs may support multiple classes that, together, provide an overarching capability (such as amphibious capabilities and afloat support capabilities managed under a single SPO).

SPOs are the key decision makers for asset management outcomes of each product they support, controlling the design, maintenance liability and inventory for each asset. They also have a direct role in managing the CLCM.

The SPO directs the engineering activities to be delivered by the DSC and accepts and assures delivery of the ILS products from the DSC.

SPOs have a key role in coordinating the inputs and outputs from other stakeholders, including the whole-of-MSD enabling functions such as Naval Logistics Information Systems. SPOs also work closely with each RMC their assets are home ported in to support the planning and execution of maintenance on them.

Capability Life Cycle Managers

CLCMs are industry partners that support the SPO in performing asset management functions to optimise the capability of assets through-life while providing cost effective sustainment. Some CLCMs support only a single class whilst other CLCMs may support multiple classes that, together, provide an overarching capability. However, all CLCM contracts are based on a standard template, tailored as necessary to align with the requirements of the particular class (or classes).

The CLCM is an integrated member of the ACE, acting on the SPO's behalf to seek sustainment efficiencies and enhanced capability outcomes. It is responsible for:

- Stewarding the ships through the capability life cycle, including performing asset management, engineering management, maintenance planning and assurance functions;
- Generating long-term work packages;
- Acting as the system integrator and Project Management Office (PMO) for capability enhancement and integration projects or updates throughout the capability life cycle;
- Conducting inventory demand planning; and
- Coordinating and collaborating with other elements of the MSM.

CLCMs are involved in supporting acquisition activities conducted outside MSD, working alongside acquisition projects to assist in developing and assuring the support system that it will execute through-life. The CLCM provides a vital link between the acquisition project and the sustainment organisation to support information and data flowing across both, in particular, incorporating lessons learned for sustainment into the support system and vessel improvements.

Designer Support Contractors

The DSC provides through-life, expert 'know how' and 'know why' advice on how a platform and its associated systems are designed so the capability outcomes can be optimised. The DSC is an industry-partner, linked closely to the original platform designer, ensuring that vessels continue to meet capability requirements and are seaworthy. Each DSC will support all classes of assets designed by the original platform designer.

For a variety of reasons including intellectual property, confidentiality or export control restrictions, the entity best able to provide DSC services is the original platform designer or related entity. The selection of the DSC would be dependent on the supplier's willingness to contribute to developing Australia's sovereign ship-design capability – a key factor in the Naval Shipbuilding and Sustainment Plan.

Designer Support Contracts are based on a standard template but tailored relevant to the asset or assets. The ship design contracts are normally different from the DSC even though they are often the same company. This is primarily to avoid complicating the two activities. In time and with further development of Australia's sovereign design capability, these contracts may become single contracts.

The key roles and responsibilities of the DSC are to:

- Maintain the platform design fidelity and baseline data through the life of the class, product, systems or equipment including digital models, drawings and design configuration data;
- Undertake engineering design activities in support of the SPO;
- Deliver ILS products from the engineering design activities for acceptance by the SPO;
- Work with the SPO to gain in-service feedback and experience in order to undertake continuous improvement activities;
- Promote knowledge and Intellectual Property transfer to improve sustainment outcomes; and
- Provide technical support to the RMCs (engineering field services).

The Regional Maintenance Centre Network

Regional Maintenance Centres

RMCs are CoA led maintenance delivery organisations located at strategic port locations across Australia (Cairns, Queensland; Henderson, Western Australia; Darwin, Northern Territory and Sydney, New South Wales). RMCs perform maintenance on all surface assets in their region (and maintain the installation of capability upgrades) including visiting assets. RMCs also provide advice in national planning and coordination forums.

Each RMC interacts closely with each ACE that has assets home ported in that location.

Over time, RMCs will be able to conduct a level of maintenance on all surface fleet vessels.

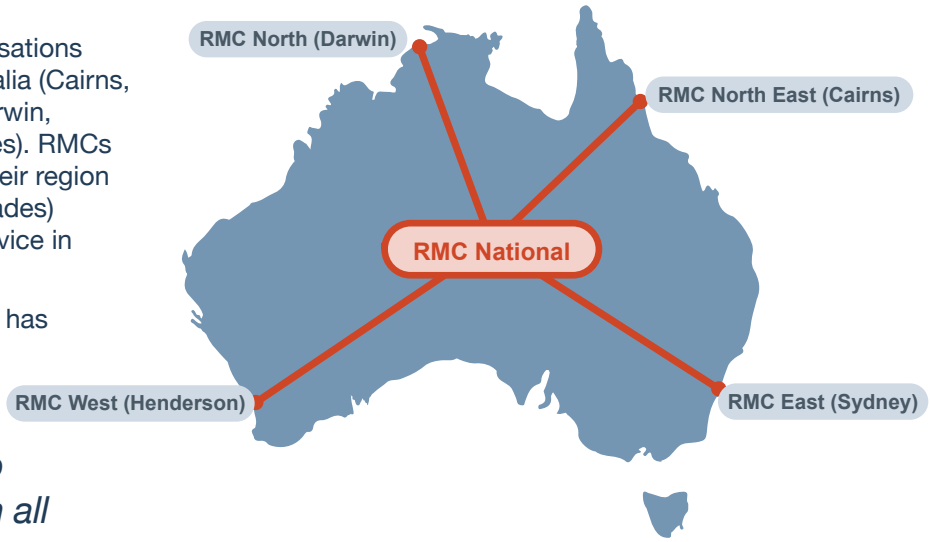


Figure 5: The Regional Maintenance Centre Network

At the centre of the network is RMC National (located in Sydney, NSW) which performs a central coordination and standardisation function as well as a strategic role for MSD in developing and growing Australian industry capability (suppliers and infrastructure). RMC National also manages a number of national contracts that support the RMCs.

RMC National works closely with each RMC to optimise maintenance delivery across the fleet, directing standardisation, coordination and continuous improvement across the network, and balancing demand against resources. Organisationally, the individual RMCs report to Director General Maintenance, who acts as MSD's representative on all maintenance functions and engagements with force commanders, to deliver ship availability to the customer.

Within each RMC there is an industry partner called the Regional Maintenance Provider (RMP). The RMP is responsible for the coordination, planning, management and delivery of maintenance services for assets home ported in each region. The RMP is primarily responsible for scheduling and coordinating the execution of the work packages, engaging suppliers to conduct maintenance, and supporting the ACE with data to enable optimisation of the maintenance baseline.

This supplier network of subcontractors and repair agents, both across Australia and internationally, utilises the data and information within the CoA data management systems to develop work instructions, requiring access to relevant IP and technical data to execute their maintenance functions. A key role of the RMP is to build resilient regional capability, including the industrial base.

Regional Maintenance Providers and suppliers are the conduit to the broader industry supply chain.

The future MSD and Sustainment in Australia

MSD is transforming how it does business in response to the Naval Shipbuilding and Sustainment Plan, the National Defence Strategy and the changing strategic environment. Through these documents, the Australian Federal Government has reaffirmed its commitment to:

- Continuous Naval Shipbuilding and Sustainment;
- a national sustainment and upgrade network to drive higher levels of fleet availability, industrial resilience and force preparedness; and,
- improving the ADF's ability to operate from northern bases.

To support this and meet the needs of customers including Navy and allied Navies under AUKUS, MSD is transforming from a product-specific approach to sustainment - with silos of excellence - to a fleet-wide one that is flexible, responsive and focuses on the generation of Military Effects.

Through this transformation, MSD will continue to safely, reliably, and cost-effectively deliver materiel capability at all levels of demand.

By prioritising responsive maintenance and data-driven decision making, implementing standardised processes, and enabling fit-for-purpose infrastructure, MSD will continue to build on Plan Galileo and the MSM to improve the way in which sustainment is governed, planned, managed, delivered, optimised and assured. This approach will empower MSD in managing the sovereign supply chain and strengthening the industrial base to meet long-term fleet sustainment needs.

This involves:

- Asset Management and stewardship – the SPO and CLCM focusing on asset stewardship, balancing upkeep and update to improve whole system performance.
- Engineering management such as:
  - Authorised Engineering Organisation (AEO) providing through-life engineering management, and system integration.
  - DSCs and Platform System Integrator (PSIs) providing interface back to ship design / build as the sovereign industry partner.
  - Cross class engineering / systems engineering provided by significant providers interfacing with the PSIs.
- Strategic sourcing, category management and cross class supply including for key categories across the fleet, and the identification of key and strategic suppliers.
- Maintenance management to ensure the delivery of seaworthy materiel.
- Sovereign design capability such as:
  - Australian-based design capability, including system integration.
  - Designers, as long-term industry partners, being contractually required and incentivised to build a sovereign design capability.
  - Sovereign designers becoming the DSCs.
  - In-service DSCs assisting with requirements and concepts for new ship designs.
- Shipbuilding with sovereign shipbuilders who can integrate with designers as required to meet Navy's needs.

More information

Visit www.defence.gov.au/business-industry/naval-shipbuilding/plan/galileo

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