Army

Land Mobility and Support Program

Serving the Nation

Contents

Army

Modular Distribution System

The Modular Distribution System (MDS) project will enhance the capabilities of Australian Defence Force's logistics system through the delivery of standardised packaging which will integrate the distribution, logistics information and supply systems. This system will enable a highly visible, configurable and optimised supply chain, which will seek to link the manufacturer to the war fighter and minimise human or mechanical interaction, generating cost and time savings.

The MDS project will address inefficiencies in the current distribution system, which uses non-standard containers and pallets that necessitate unpacking and repacking, physical inspection and human action as items move through logistic nodes. The adoption of a standardised packaging system that is designed to meet the requirements of the whole of the ADF will ensure interoperability with the ADF land, sea and air assets, and those of our coalition partners. The MDS project will also implement In-Transit Visibility (ITV) tracking within its components that will integrate directly with Defence logistics and asset management systems to provide a digitised, automated tracking and oversight capability of the end-to-end logistical system.

MDS components will leverage the existing LAND 121 platforms to provide rapid transition between modes of transport and deployment on the ground. The Integrated Load Handling (ILH) system on the HX-77 and crane system on select 40M platforms enable self-supporting logistics without the requirement for additional Material Handling Equipment (MHE). This capability will deliver a joint effect to enable the ADF to operate and fight at a higher tempo, with improved agility, utilising less resources and with greater visibility.

The MDS Project will establish an Australian Defence Standard for MDS components, and inform ADF-wide adoption of the system through trials and automated scenario modelling.

Australian Industry

The MDS project presents a significant opportunity for Australian industry and has reasonable export potential. The project is expected to achieve all required Australian Industry Participation thresholds, with approximately 90% of MDS components currently capable of being manufactured by Australian industry.

Army

Joint Project 2060 – Phase 3
Health Clinical Care

Delivering the next generation Australia Defence Force Deployable Health Capability

JP2060 Phase 3 will deliver the future Health Clinical Care component of the next generation Deployable Health Capability for the Joint Force. The Project will provide deployable lifesaving clinical care through the upgrade of health equipment and the expansion of deployable specialist surgical capabilities.

The capability will be modular, scalable and flexible to allow for unique health care responses tailored to each operational environment.

JP2060 Phase 3 will strengthen the ADF health response with the enabling capability to treat highly complex conflict zone wounds, injuries and illnesses.

The new health structures will enable the ADF to task-organise and operate with Coalition partners, but also enable Australia to assume a leadership roles within deployed health support.

Australian Industry

The ADF is evolving and modernising its deployable health care for both domestic and overseas operations. This work will be conducted in partnership with its industry partner, Saab Australia, to deliver the most comprehensive deployable health transformation in ADF history. Effectively providing a holistic deployable health capability, including three fully-equipped field hospitals (two for the Army, and one for the Air Force) under a new $370 million contract.

SAAB Australia will deliver and sustain the Deployable Health Capability which will result in increased efficiency and reduced domestic logistic burden. Saab will also provide training, particularly in the early stages of introducing the capability into service.

Saab Australia has subcontracted Aspen Medical, Philips Healthcare Australia & NZ, Veritas, Global Defence Solutions and Marshall Land Systems to deliver more than 550 deployable medical modules with an initial five-year Support Contract. Capabilities will be delivered to Defence commencing in 2023.

Saab Australia has established a Deployable Health Capability Support Centre in south-east Queensland, creating 50 new full-time positions. Saab Australia will also expand its presence in Australia by relocating its global Deployable Health System Design and Development Centre from Europe to Australia.

This presents new opportunities for Australian businesses to benefit from international technology transfer and improve our access to global marketplaces and aligns the ADF's deployable health capabilities with the leading edge of international military health capabilities.

Army

Joint Project 8190
Deployable Bulk Fuel Distribution Capability

Scope

JP 8190 Deployable Bulk Fuel Distribution aims to replace and modernise the ADF's current in-service Deployable Bulk Fuel Distribution capability to deliver sufficient deployable fuel capacity to support the Joint Force. The Project will be delivered across two phases, JP 8190 Phase 1 and JP 8190 Phase 2. The successful delivery of Phase 1 will set the conditions for Phase 2.

Phase 1 will replace and modernise the current DBFD system capability to support and sustain dependent vehicles and platforms by integrating with in-service bulk fuel transportation and storage assets, and relevant ADF and commercial assets. This will enable timely and reliable transport, storage and distribution of fuel.

Phase 2 will enhance the capability delivered in Phase 1 to enable the DBFD capability to support and sustain the operational theatre fuel requirements of the Joint Force Fighting System, inclusive of an Air Task Force and expeditionary basing. This will comprise all capability components of Phase 1, plus extra-large storage tanks, additional pipeline, and associated upscaling equipment including aviation specific refuelling/defueling and fuel quality testing equipment.

Capability Gap

The elements of the in-service bulk fuel capability delivered by the project's predecessor (JP 2059-3) are reaching life of type or obsolescence with decreasing availability.

The current deployable bulk fuel capability is operator intensive, poorly integrated, has limited pollution control equipment, lacks waste management systems, and lacks the ability to accurately, remotely monitor fuel holdings. This limits the Joint Force's ability to support large-scale independent operations in the immediate region.

Australian Industry Capability (AIC)

AIC is expected to provide major systems and components of JP 8190 with the provision of sustainment and training services. This will provide industry with opportunities throughout the life of the system

Key Systems:

- Ground vehicle refuelling point
- Aircraft refuelling point
- Vehicle mounted diesel fuel module (Tank and Pump Assembly replacement)
- Air-portable collapsible fuel containers (internal and external cargo)
- Fuel over the shore systems (maritime pipeline and landing craft-compatible collapsible fuel tanks)
- Bulk fuel transfer pumps
- Collapsible fuel storage tanks (micro, small, medium, large)
- Ground and aviation fuel filtration
- Fuel quality monitoring and testing
- Waste Petrol, Oils, and Lubricant (POL) storage and disposal
- Land and littoral pollution control and remediation
- Bulk POL storage site design and management device and software

Army

Land Project 121 – Phase 3B and Phase 5B Medium Heavy Capability

The Land 121 Program is a multi-phased program providing the Australian Defence Force (ADF) with current generation, high-capability field vehicles, modules and trailers.

Project Land 121's Phases 3B and 5B are acquiring 3,751 protected and unprotected vehicles, 2,565 Trailers and 4,730 modules, providing battlefield mobility and logistic support. These are comprised by a range of medium weight (4x4 and 6x6) and heavy weight (8x8 and 10x10) vehicles, in both protected and unprotected configuration, with trailers as a mission system.

Land 121's Phases 3B and 5B are replacing Army's and Air Force's aging Unimog, Mack and S-Liner vehicle fleet, with modern logistic vehicles, modules and trailers. The new vehicles and trailers will enhance the ADF's protection, load carriage capacity, cross-country performance, which provides an increase in capability to the Services.

Approximately 30% of the fleet will be delivered in a protected variant, to ensure our people are operating in the safest conditions possible. Each vehicle will come fitted with networked radio's and battlefield management systems, providing a digitised logistics capability.

Rheinmetall MAN Military Vehicles Australia (RMMVA) is delivering the Medium Heavy Vehicle capability for the ADF. Haulmark Trailers (Australia) is delivering the suite of trailers towed by the Medium and Heavy vehicles

Key systems:

- Medium: 40M Mission System
- Heavy: HX77 Mission System
- Semi-Trailer: HX81 Mission System
- Bulk Liquids: HX77 Tanker, bulk fuel and water semi-trailer and bulk fuel and water modules
- Engineering: Medium/Heavy Dump trucks, Maintenance and Bridging Modules
- Distribution: Flat-rack, Medium/Heavy Stores modules
- Recovery: 42M Medium Recovery vehicle and 45M Heavy Recovery vehicle
- Artillery: Gun Tractor for M777, Gun Ammunition and Gun Stores modules.
- Other Modules: Personnel Module, Tyre Changing Station.

Australian Industry

RMMVA has teamed with the following key sub-contractors from Australian and New Zealand Industry:

- G.H. Varley (Newcastle, NSW) providing Stores and Maintenance Modules
- Holmwood Highgate (Loganholme, QLD) providing fuel and water modules and tanker bodies
- RPC Technologies (Seven Hills, NSW) providing module interface to carry engineering bridging and boats
- ECLIPS (Fyshwick, ACT) providing flat-racks
- Thales Australia (Rydalmere, NSW) providing crew intercommunication systems and engineering support for communications integration
- Penske commercial Vehicles (Wacol, QLD) pre-delivery activities and spare parts support and supplies
- Customs Agency Services (Cowandilla, SA) providing land, sea and air freight forwarding services
- LINFOX providing shipping and distribution services
- TRT (New Zealand) Fabrication of Dump truck bodies and Tyre Change Station.
- Haulmark Trailers Australia (Rocklea, QLD) is providing trailers for the Medium Heavy Capability.
- Scientific Management Associated (Hawthorne, VIC) to provide training and logistics services (sub-contracted by Haulmark).

Land 121 Phase 3B and 5B will sustain over 100 Jobs with Haulmark Trailers Australia and a further 100 Jobs with RMMVA, its sub-contractors and supply chain. Maintenance and through life support for all vehicles, trailers and modules are undertaken in Australia. Collectively Land 121 Phase 3B and Phase 5B will provide more than $1 Billion back into Australian Industry.

Army

Land Project 121 – Phase 4
Protected Mobility Vehicle – Light

The Land 121 Program is a multi-phased program providing the Australian Defence Force (ADF) with current generation, high-capability field vehicles, modules and trailers. It will acquire over 7500 protected and unprotected vehicles, providing battlefield mobility and logistic support.

The Land 121 Phase 4 project will acquire 1100 Protected Mobility Vehicles–Light (PMV-L) providing a command, liaison, surveillance, and utility roles for the ADF. The PMV-L has been developed to provide the optimum balance of survivability, mobility, payload capacity, communications, usability and sustainability.

In 2015, the Commonwealth of Australia entered into contract with Thales Australia for the acquisition and support of 1100 PMV-L (Hawkei), and 1058 companion trailers.

The Hawkei provides the ADF with a new protected mobility capability, comparable to the Thales Bushmaster – now in service with many nations globally.

The Hawkei provides a light weight, mobile, networked platform, supported by an Integral Computing System which unifies the next-generation communications, battle management systems, weapon systems and vehicle management systems.

Australian Industry

In 2011, the ADF selected the Hawkei as the preferred vehicle for development and testing, which supported the manufactured and supported in Australia option, with more than 50% of the vehicle design and manufacture costs incurred in Australia.

Multiple prototypes have been developed in Australia and undergone a range of operator, capability and reliability testing and evaluations. The program of testing provides assurance to the ADF that the Hawkei would meet the key capability requirements.

The progression of the PMV-L in Australia has directly supported the continued production of vehicles at the Bendigo vehicle production plant. It is estimated that Hawkei production supports up to 210 jobs in Bendigo region, with additional jobs created throughout the Thales Australia supply chain.

The PMV-L will be supported through its life by Australian industry. Full rate production commenced in Dec 2020, and the PMV-L achieved Initial Operational Capability in May 2021.

Army

Land Project 8140 - Deployed Force Infrastructure

Land 8140 will deliver environmental and threat appropriate essential services and accommodation to support a full range of military operations. These operations may include the delivery of Joint effects in austere environments or assisting Australians and others affected by natural disasters. The capability provided by LAND 8140 is fundamental to preserve the health, welfare, and overall operational effectiveness of our deployed force.

The Land 8140 project is a multi-tranched project providing the Australian Defence Force (ADF) with a deployed basing effect, including power generation, water purification, waste management, shelters, amenities and future energy requirements.

The Land L8140 Tranche 1 is remediating existing capability including power generation and water purification, as well as procuring deployable catering, showers, toilets, laundries, and military working-dog kennels.

Australian Industry

In 2022, Land 8140 signed contracts for Tranche 1 to fill urgent capability gaps. Tranche 2 will follow the Tranche 1 investment, and will seek to provide a more coherent and integrated deployed basing capability. LAND 8140 is a key element of Army's effort to be more joint, integrated and ready; and able to scale or change form in response to the strategic situation.

Army's ability to provide its people Deployable Force Infrastructure capabilities enable land power contribution to the strategic objectives of Shape, Deter and Respond while defending Australia and its interests.

The Deployable Force Infrastructure project will seek industry partnerships to deliver integrated capability through a hybrid support model that may incorporate standing offers. This may involve responsive industry partners focused on strengthening National resilience and providing Just-In-Time response options.

Family of Systems:

- Power: Generation, storage, management and distribution
- Water: Generation, storage and distribution
- Waste: Liquid, Solid and Hazardous material
- Amenities: Welfare, catering, showers, toilets and laundries
- Shelters: General purpose and specialist

Army

Land Project 8710 – Phase 1
Army Littoral Manoeuvre

This modernisation effort will be realised through the acquisition of a medium landing craft and an amphibious vehicle through LAND 8710 Phases 1A and 1B respectively. The acquisition of Phase 1A will enable Army to retire the in-service landing craft, the LCM-8, and introduce the next-generation Littoral Manoeuvre Vessel – Medium, which will be capable of manoeuvring Army's future vehicles and offensive capabilities in littoral and riverine environments. Phase 1B will see the acquisition of a new amphibious vehicle, the Littoral Manoeuvre Vessel – Amphibious, that will replace the in-service LARC-V, providing a comparable over-the-shore capability.

Australian Industry

The project gained Government First Pass approval in late 2020 and approached the market for both the LMV-M through Phase 1A and LMV-A through Phase 1B in December 2021. Tender evaluations for both phases commenced in the second half of 2022 after tender closures, with an announcement of shortlisted tenderer/s scheduled for in 2023. Defence is committed to maximising Australian Industry participation in the detailed design, build, maintenance and support of LAND 8710.
Future phases of LAND 8710 will deliver a Littoral Manoeuvre Vessel – Heavy, a Littoral Manoeuvre Vessel – Patrol and new Army Littoral Manoeuvre basing in Darwin and Townsville.

Army

Protected Mobility Integration and Capability Assurance (PMICA) Program – Combat Team 1

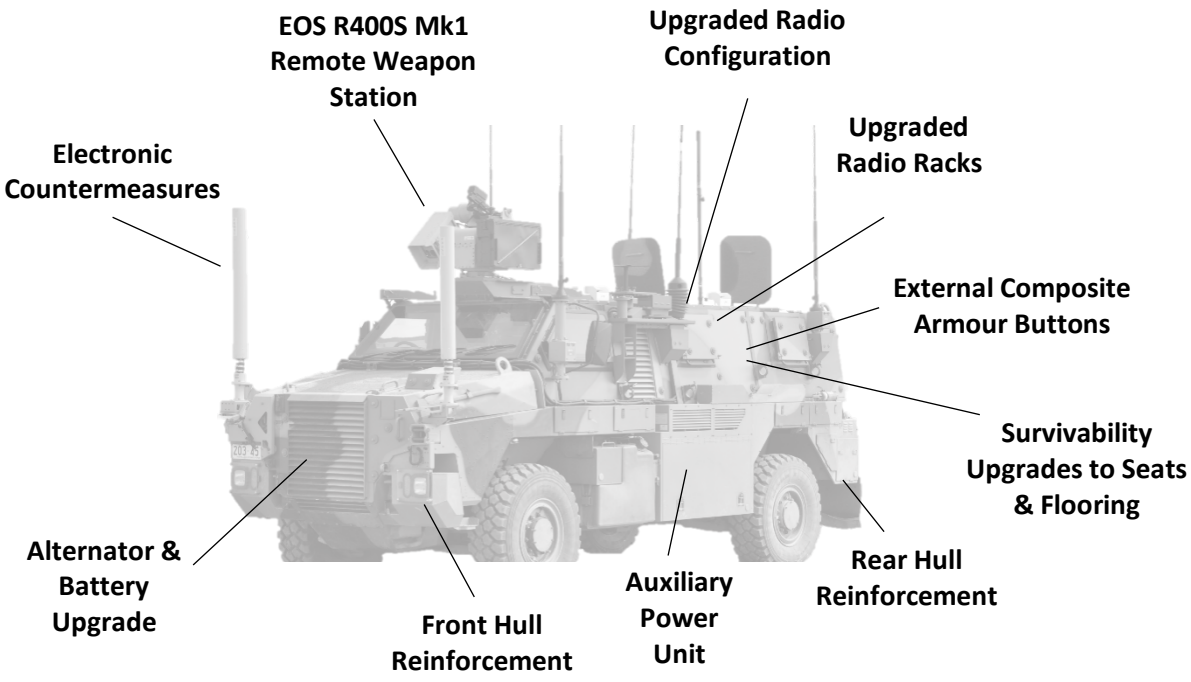
The Australian Defence Force (ADF) requires a Protected Mobility capability that delivers protection, lethality and Command, Control, Communications, Computers and Intelligence (C4I) systems.

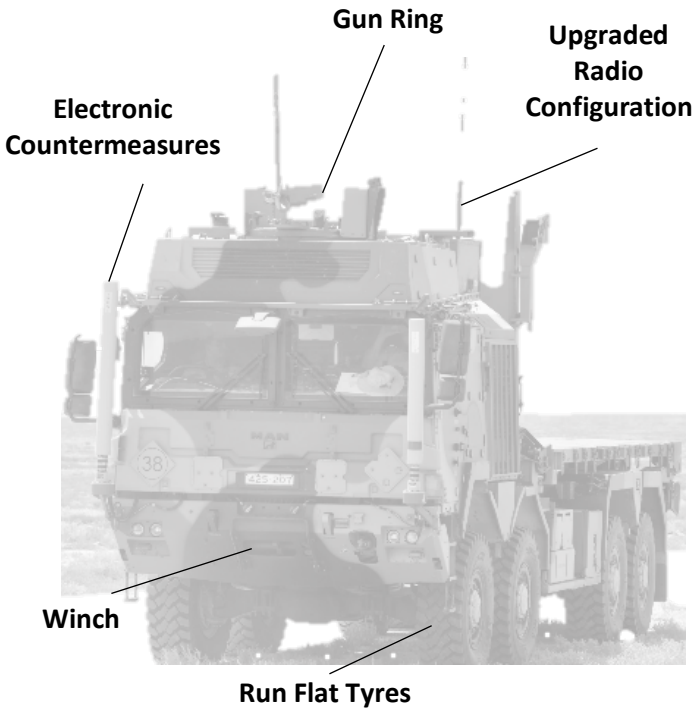
PMICA has established a common vehicle baseline to provide deliberate and controlled integration of current systems into:

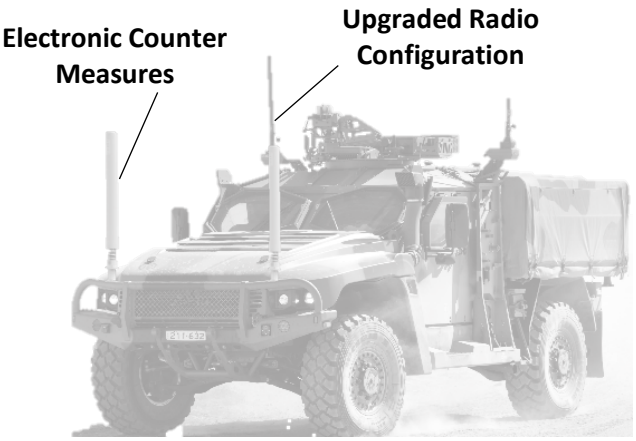
- Protected Mobility Vehicle – Medium (PMV-M) Bushmaster
- LAND 121-4 Protected Mobility Vehicle – Light (PMV-L) Hawkei
- LAND 121-3B Protected Medium and Heavy Capabilities (MHC (P))

The PMICA Program will deliver the first Combat Team to provide maturity in understanding the cost and configuration baseline that will be applied across the remainder of the Ready Battle Group delivered under LAND 4111.

Protected Mobility Integration and Capability Assurance (PMICA) Program







PMICA Operations Enhancements

- **Lethality options**. Swing mounts, shielded gun rings and remote weapons stations.
- **Connectivity**. Upgraded communications suite; improved integration between communications and electronic countermeasures.
- **Survivability**. Improved physical protection and electronic countermeasures.
- **Enablers**. Power upgrades to enhance silent watch and command & control capabilities.

Army

Land Project 4111 – Tranche 1
Protected Mobility Modernisation Project

The Australian Defence Force (ADF) requires a Protected Mobility capability that delivers protection, lethality and Command, Control, Communications, Computers and Intelligence (C4I) systems.

LAND 4111 will modernise the ADF's Protected Mobility fleet to ensure it remains aligned to emerging threats and operational requirements. This will be achieved through the implementation of upgraded vehicle baselines before transitioning into a rolling project, taking advantage of technological opportunities and keeping pace with threat trends.

LAND 4111 Tranche 1 will deliver an upgraded Ready Battle Group (RBG) capability. The RBG will be based on the configuration baseline developed by the Protected Mobility Integration and Capability Assurance (PMICA) Program. The PMICA Program provides a foundation to LAND 4111, through the provision of the initial baseline configuration designs and delivery of the first Combat Team.

Defence Industry

- L4111 directly supports Sovereign Industrial Capability Priorities
- L4111 promotes long term strategic partnership opportunities, through a continuous modernisation, support and sustainment program

The current Protected Mobility fleet includes the Protected Mobility Vehicle-Medium (PMV-M) Bushmaster, Protected Mobility Vehicle-Light (PMV-L) Hawkei, and Protected Medium/Heavy Capability (MHC) Trucks. LAND 4111 operational enhancements will include:

Lethality. Offensive systems to provide the Protected Mobility fleet with effective and protected engagement of threats.

Connectivity. C4I suite to enhance situational awareness and improve command & control.

Survivability. Protection systems against anticipated threat profiles in the deployed environment.

Enablers. Power upgrades and load handling systems, to improve supportability and efficiency.

The **Protected Mobility fleet** provides the ADF with the flexibility to deploy in a wide range of low to medium threat environments, allowing the Land Force to simultaneously maintain:

- persistent presence in the battlespace – through increased endurance and resilience;
- pervasiveness – through high mobility and protection;
- deterrence and response – through enhanced firepower and integrated weapon systems;
- situational awareness – through enhanced C4I systems, improving the ability to network with the Land Combat Force; and
- support to Force elements – through an enhanced ground distribution effect.

LAND 4111 Modernisation Considerations

- Remote weapons stations
- Communication interoperability
- Generic Vehicle Architecture (GVA)
- Transparent armour
- Communication suites
- Continuous modernisation and configuration management
- Swing and ring mounts
- Auxiliary power units
- Automated load handling systems
- Enhanced hull protection
- Rocket Propelled Grenade (RPG) protection options