



Australian Government
Department of Defence

DEFENCE CAPABILITY GUIDE

2012





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Public Version

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Stephen Smith MP
Minister for Defence

FOREWORD

On 10 July 2012 the Government released the Public Defence Capability Plan (DCP) which outlined the 111 priority projects planned for either First or Second Pass approval over the four year Forward Estimates period 2012-13 - 2015-16. When I announced the Public DCP, I stated that we would subsequently be releasing a new document to complement the Public DCP, to be referred to as the Defence Capability Guide (DCG).

The DCG is designed to assist Industry by providing general direction on projects over the six year period that follows on from the four year Forward Estimates period covered in the Public DCP. The purpose of the DCG is therefore to provide Industry with guidance regarding Defence's capability developments beyond the financial year 2016-17 out to 2021-22. This information is provided to Industry in order to provide transparency on Government's capability intentions over the coming decade and to assist them in their future planning.

The DCG will ensure that Industry has information about the Government's longer term capability intentions, noting that beyond the four year DCP, there is inevitably more uncertainty, and projects are less well defined and will be subject to change, in terms of scope, cost and schedule. As a consequence, it is critical to note that the DCG will remain subject to change as strategic circumstances evolve, new technologies emerge and priorities are updated to reflect the changing needs of the Australian Defence Force (ADF). This is the nature of modern Defence major capital equipment procurement.

This guide will be updated on an annual basis to provide ongoing advice on strategic guidance, capability decisions and resource planning. These will continue to evolve due to a range of reasons that span from the global economy to the international and regional strategic security position.

The forthcoming White Paper 2013 will shape and provide further detail on the capabilities required in the future. The White Paper will also inform an updated 2013 Public DCP and DCG.

Like the Public version of the DCP, the DCG is first and foremost a national security document. It is useful in providing guidance and forward-planning information for Industry, but should not be viewed as an Industry policy document. The DCG aims to provide Australian Industry with what information we can on our future capability requirements. It is the Government's intention to develop and publish revised Defence Industry Policy Statement (DIPS) as soon as practicable after the 2013 White Paper. The DIPS will continue to evolve in order to refine guidance to Industry on the opportunities that exist in the Defence sector.



The DCG contains 24 projects or phases of projects beyond the Forward Estimates period and will be reviewed in light of changing fiscal and strategic circumstances. The level of information on each project is less definitive than in the Public DCP. This is deliberate. Project information in the DCG is limited, for example, as Industry engagement and planning may not yet have commenced.

The DCG also excludes those projects that are subject to national security classification restrictions.

I take this opportunity to thank Industry for the positive feedback on the 2012 Public DCP and welcome further Industry feedback on this, the first Defence Capability Guide.

Stephen Smith MP

Minister for Defence

ABBREVIATIONS

ABM	Air Battle Management
ADF	Australian Defence Force
ADGE	Air Defence Ground Environment
AEW&C	Airborne Early Warning and Control
AIM	Abrams Integrated Management
ASW	Anti-Submarine Warfare
AWD	Air Warfare Destroyer
BPM	Business Process Management
C2	Command and Control
C4	Command, Control, Communications, Computing
C4I	Command, Control, Communications, Computing and Intelligence
CBRNE	Chemical, Biological, Radiological, Nuclear and Explosive
CDG	Capability Development Group
CEC	Cooperative Engagement Capability
CIED	Counter Improvised Explosive Device
C-RAM	Counter Rocket, Artillery and Mortar
DCG	Defence Capability Guide
DIE	Defence Information Environment
DIPS	Defence Industry Policy Statement
EASTROC	Eastern Region Operations Centre
ECM	Enterprise Content Management
EOD	Explosive Ordnance Disposal
ERAM	Extended Range Active Missile
ESM	Electronic Support Measures
FPECM	Force Protection Electronic Counter Measure
GBAD	Ground Based Air Defence
GBAMD	Ground Based Air and Missile Defence
GEOINT	Geospatial Intelligence
GIS	Geospatial Information Systems
GSS	Geospatial Support System
HATS	Helicopter Aircrew Training System
HQ JOC	Headquarters Joint Operations Command
IBS	Integrated Broadcast Service
ICT	Information and Communications Technology
IED	Improvised Explosive Device
IME	Information Management Element
IOC	Initial Operational Capability
IRR	Incident Response Regiment

ABBREVIATIONS

ISR	Intelligence, Surveillance and Reconnaissance
IT	Information Technology
JCSE	Joint Command Support Environment
JNLC	Joint Non-Lethal Capabilities
JORN	Jindalee Operational Radar Network
JSF	Joint Strike Fighter
LACM	Land Attack Cruise Missile
LHD	Landing Helicopter Dock
LOT	Life of Type
MARPOL	International Convention for the Prevention of Pollution from Ships
MUAS	Multi-Mission Unmanned Aerial System
MBT	Main Battle Tank
MIMS	Mincom Information Management System
MLIS	Materiel Logistic Information System
MOTS	Military-off-the-Shelf
MTWAN	Mobile Tactical Wide Area Network
NCW	Network Centric Warfare
NORTHROC	Northern Region Operations Centre
PDCP	Public Defence Capability Plan
RAAF	Royal Australian Air Force
RAN	Royal Australian Navy
RFID	Radio Frequency Identification
SA	Situational Awareness
S&W	Sense and Warn
SAM	Surface to Air Missile
SDSS	Standard Defence Supply System
SM2	Standard Missile 2
SM6	Standard Missile 6
SOER	Special Operations Engineer Regiment
TUAV	Tactical Unmanned Aerial Vehicle
UAS	Unmanned Aerial System
UAV	Unmanned Aerial Vehicle
USN	United States Navy
VMF	Variable Message Format
WCM	Web Content Management
WP09	White Paper 2009

CAPABILITY DEVELOPMENT GUIDANCE BEYOND 2016

The Defence Capability Guide (DCG) identifies to Industry the general capabilities and scope of major projects that were not listed in the Public Defence Capability Plan (PDCP) 2012 as their approval dates are beyond the Forward Estimates period 2011-12 - 2015-16.

Government decided that the PDCP 2012 would focus on the expenditures expected over the next four years; while White Paper 2009 (WP09) outlined significant commitments for Australia's military capabilities beyond this period. While these are capabilities that Defence currently plans to progress, the forthcoming White Paper 2013 will provide further detail on the capabilities required by the future ADF.

The following pages provide details of the 24 major projects and phases that may be included in future DCPs. These projects are listed by environmental domain and provide additional information on some of the key capabilities as a guide for Industry planning purposes. As priorities, strategic circumstances and new technologies evolve, the DCG will remain an overview of planned future projects and will be subject to change at any time.



Aerospace Domain



The Aerospace Domain has a number of capabilities which are likely to require replacement or upgrading post-2016. These capabilities include Tactical Unmanned Aerial Vehicles (TUAVs), Command and Control nodes, Intelligence, Surveillance, and Reconnaissance (ISR) platforms, and the Air Defence Ground Environment (ADGE) capability under AIR 5333. These capabilities provide enhanced networking throughout the ADF and interoperability with our partners.

The P-8A Poseidon is expected to enter service around 2019-2020 timeframe and will provide a replacement for the ageing AP-3Cs and enhance our maritime intelligence, surveillance, reconnaissance, and response capability. The P-8A Poseidon will also be supplemented by a Multi-Mission Unmanned Aerial System (MUAS) capability between 2019-2022.

White Paper 2009 (at para 9.60) advised that the Government had decided that it will acquire around 100 F-35 JSF, along with supporting systems and weapons. AIR 6000 Phase 2A/2B plans to acquire no fewer than 72 F-35A to form three operational squadrons and a training squadron. Phase 2C (unapproved) is the planned acquisition of a fourth operational JSF squadron and selected support and enabling elements to bring the total number of aircraft to around 100. The decision to acquire the fourth operational JSF squadron will be considered in conjunction with a decision on the withdrawal of the Super Hornet. A decision on this final batch of JSF is not expected before 2016. This capability is planned to provide Australia with a significant advantage within the aerospace domain and includes advanced weaponry capable of prosecuting a number of different threats in a variety of environments.

New Pilot, Air Combat Officer, and Maritime Aviation Warfare Officer training systems will also be implemented within the 2017-2020 timeframe. This is anticipated to increase the effectiveness and efficiency of these training systems, potentially allowing increased student numbers and training on advanced generation aircraft.

Other planned capabilities that fall within the Aerospace Domain that are outside the scope of the Public DCP 2012 timeframe include:

- **AIR 5077 Phase 5B AEW&C Mid-Life Upgrade.**

The AEW&C capability is a critical Command & Control (C2) node and ISR platform; its interoperability with ADF assets (both extant and emergent) and coalition partners is pivotal to the operational effectiveness of the capability. Phase 5B is intended to implement a number of growth and enabler upgrades.

- **AIR 5333 Phase 2 Vigilare Upgrade.** The Vigilare system delivered under AIR 5333 Phase 1 provides the RAAF with an enhanced Air Defence Ground Environment (ADGE) command, control and communications capability. Phase 2 plans to maintain the effectiveness of the Vigilare capability in an evolving Network Centric Warfare (NCW) environment and to assure long term supportability. Phase 2 plans to incorporate emerging technologies, which could include Variable Message Format (VMF), Link 22, Cooperative Engagement Capability (CEC), and integrated Electronic Support Measures (ESM) and intelligence sub-systems. This phase will also consider the replacement of the Air Battle Management training facility at the Eastern Region Operations Centre (EASTROC), and an enhanced simulation capability at both EASTROC and the Northern Region Operations Centre (NORTHROC).

- **JP 129 Phase 3 Tactical Unmanned Aerial Vehicle – Enhancements/Upgrades.**

This phase will provide enhancements to the ADF TUAV capability. The Phase 3 TUAV capability will be informed by experience with the Phase 2 capability, and will leverage off technological development in system and sensor design and employment. Advancements in sensor technology design, output, and integration into Unmanned Aerial Systems (UAS) as well as platform design and ground system common architectures are expected to continue, with the Army in particular benefiting from enhanced capabilities.



Enabling Capabilities



Important enabling capabilities will continue to be delivered. Importantly, Defence has secured both its broadband and narrow band satellite communications in the Indian Ocean region and Pacific Ocean regions. Examples of some of the key enabling projects and follow-on phases are listed below:

- **JP 1544 Phase 2 Enterprise Content Management System Enhancement.** Joint Project 1544 Phase 2 plans to deliver an evolutionary development/replacement of the initial capability toolset delivered under Phase 1 of the project, and to address technological advancements in records management. JP1544 plans to improve Defence's levels of effectiveness and efficiency in managing its holdings of physical and electronic records, and to ensure ongoing compliance with legislated and standards-based mandatory Commonwealth record keeping obligations.



Land Domain



The Army continues to execute Plan BEERSHEBA and the associated networking of the Army. Key elements of these plans are the significant vehicle replacement programs under both LAND 121 (Overlander) and LAND 400. While most aspects of LAND 121 are settled, there will be some fine tuning of vehicles numbers and the communications fit for each vehicle.

The networking of the Army is a major Defence undertaking which will transform the Service. As the plans mature, the most cost effective use of technology will be sought to deliver this capability.

Other focus areas in the Land Domain include:

- **JP 154 Phase 3B Joint Counter Improvised Explosive Device.** Joint Project 154 Phase 3B plans to continue a technology refresh of current Force Protection Electronic Counter Measures and Counter Improvised Explosive Device systems and potentially extend their employment to additional platforms. Future phases beyond 3B will replace existing Explosive Ordnance Disposal (EOD) robots and further develop the ADF's route clearance capability.
- **JP 2030 Phase 9 ADF Joint Command Support Environment.** Defence intends to build on the command and control capabilities provided under the evolving Joint Command Support Environment as developed in previous phases of the JP2030 Project. Phase 9 is planned to continue the consolidation of existing Command Support Systems into the Joint Command Support Environment, providing enhanced Command and Control functionality for ADF operations.
- **JP 2077 Phase 2D Improved Logistic Information Systems.** Joint Project 2077 Phase 2D plans to augment and improve areas of Materiel Logistics Enterprise Reporting, Asset Management, and Integrated Engineering and Maintenance Management. This includes addressing underlying information systems architecture and data management issues. This core transactional system will be integrated into the future enhanced ADF Logistics Information and Communications Technology (ICT) deployable capability. This will extend the reach of critical core functions to units on operations and deliver an integrated in-transit cargo visibility system.

- **JP 3011 Phase 1 Joint Non-Lethal Capability.** Joint Project 3011 Phase 1 is a new project designed to develop a robust ADF non-lethal capability that expands the spectrum of response options available to commanders, ensuring a precise and discriminate effect can be achieved as most appropriate for the mission.
- **JP 3025 Phase 2 Deployable Special Operations Engineer Regiment (SOER) Capability.** Joint Project 3025 Phase 2 plans to continue to improve the specialist counter Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE) capability within the ADF. This will be achieved by expanding the capabilities of the SOER and improving specialist CBRNE reconnaissance and search support to Special Forces operations.
- **LAND 17 Phase 2 Artillery Digital Terminal Control System.** LAND 17 Phase 2 plans to update and sustain the Digital Terminal Control Systems and Tactical Full Motion Video capabilities for coordination of Joint Fires to its Life Of Type (LOT) in about 2030.
- **LAND 19 Phase 7B Ground Based Air and Missile Defence Enhancements or Replacement.** LAND 19 Phase 7B plans to build upon the Counter Rocket Artillery and Mortar (C-RAM) 'Sense and Warn' Force Protection capability to develop a GBAMD Force Protection capability that will be able to sense, warn of, and intercept a wider variety of threats. The capability may also provide airspace surveillance. These phases will include a Command, Control, Communications, Computing (C4) management system that will be capable of operating autonomously and/or within a Joint or Coalition Air and Missile Defence network contributing to ADF Airspace Management and Air-Land Integration.
- **LAND 159 Phase 1 ADF Small Arms Replacement.** LAND 159 Phase 1 is a new project to replace the ADF small arms fleet ranging from pistols through to the 7.62mm calibre machine gun. The small arms replacement project plans to develop capability solutions for personal defence weapons, individual combat weapons and support weapons.
- **LAND 907 Phase 2 Main Battle Tank Upgrade.** LAND 907 Phase 2 plans to continue to develop the Land force war fighting advantages afforded by LAND 907 Phase 1 through enhancements in knowledge, lethality, mobility, survivability, and sustainability of the M1A1-SA Abrams Tank and the M88A2 Hercules Recovery Vehicle to their LOT in about 2030. This phase plans to include integration of developing Network Centric Warfare interface control systems; operator, supervisor, instructor, and support training; training and simulation equipment and technical support; and training technology review.



Maritime Domain

Already approved capabilities that will continue to enter service after 2016 include the Hobart Class Destroyers, the second Canberra Class LHD and the modernised ANZAC Frigates. These platforms will transform the RAN, providing it with a more robust blue water and littoral capability.

Future planned phases related to these platforms include:

- **JP 1771 Phase 2 Geospatial Support Systems for the Land Force (Upgrade).** Joint Project 1771 Phase 2 will further develop the Geospatial Support System by replacing system components delivered in Phase 1 that are beyond life of type and introducing other system components that could not be delivered in Phase 1.
- **JP 2044 Phase 6 Defence Geospatial Intelligence Capability Enhancement.** Joint Project 2044 Phase 6 plans to significantly enhance Defence Geospatial Intelligence (GEOINT) capability, reflecting changes in requirements, GEOINT collection capabilities and information technologies over the next decade.
- **JP 2065 Phase 3 Integrated Broadcast Service.** Joint Project 2065 Phase 3 plans to further develop the Integrated Broadcast Service through investigation of new radio technologies. Phase 3 may also expand the user base through improved network dissemination.
- **SEA 1000 Phases 3 and 4 Future Submarine.** These follow on phases plan to complement the Future Submarine and sea-based strike capability by providing stockholdings of the selected weapons for the Future Submarine fleet and the weapons required for Test and Evaluation, training, and tactical development. The Future Submarine will be provided with a maritime based land attack cruise missile (LACM) capability, including weapons control and mission planning sub-systems.
- **SEA 1360 Phase 1 Maritime Extended Range Air Defence.** SEA 1360 Phase 1 plans to provide the RAN with a Standard Missile 6 (SM-6) extended range active missile (ERAM) capability for the Hobart Class Destroyers.
- **SEA 1442 Phase 5 Maritime Communication Modernisation.** SEA 1442 Phase 5 plans to enhance and modernise the communications capability of the Canberra Class LHD, Hobart Class Destroyers and other legacy platforms. This will include modernisation and improvements to the technology baselined on the Mobile Tactical Wide Area Network (MTWAN) capability being delivered by SEA 1442 Phases 3, 4 and communications systems improvements.
- **SEA 4000 Phase 4 Air Warfare Destroyer (AWD) – Maritime Based Strategic Strike.** SEA 4000 Phase 4 plans to fit the Hobart Class Destroyers with a maritime based LACM capability. This phase will seek to include procurement of weapons, platform integration and development of the Mission Planning infrastructure required for employment of the capability.
- **SEA 5000 Phases 1, 2 and 3 Future Frigate.** This multi-phase project plans to introduce into service the next generation of naval surface combatants, which will be larger than the ANZAC Class vessels, equipped with a strong emphasis on submarine detection and response options, and capable of independent and task group operations.



DEFENCE CAPABILITY PLAN

PROPOSALS

Project Number	Project Name	Program	Sub Program	Page
AIR 5077 Ph 5B	AEW&C Mid-Life Upgrade	Aerospace	Aerospace Battlespace Management	19
AIR 5333 Ph 2	Vigilare Upgrade	Aerospace	Aerospace Battlespace Management	20
JP 129 Ph 3	Tactical Unmanned Aerial Vehicles – Enhancements/ Upgrades	Aerospace	Integrated Aerospace Systems	21
JP 154 Ph 3B	Joint Counter improvised Explosive Device	Land	Land Support	22
JP 1544 Ph 2	Enterprise Content Management System Enhancement	Integrated Capability	External ¹	23
JP 1771 Ph 2	Geospatial Support System for the Land Force (Upgrade)	Maritime	Intelligence and Geospatial	24
JP 2030 Ph 9	ADF Joint Command Support Environment	Land	Joint C3	25
JP 2044 Ph 6	Defence Geospatial Intelligence Capability Enhancement	Maritime	Intelligence and Geospatial	26
JP 2065 Ph 3	Integrated Broadcast Service	Maritime	Intelligence and Geospatial	27
JP 2077 Ph 2D	Improved Logistics Information Systems	Land	External ¹	28
JP 3011 Ph 1	Joint Non-Lethal Capability	Land	Land Combat	30
JP 3025 Ph 2	Deployable Special Operations Engineer Regiment (SOER) Capability	Land	Land Combat	31
LAND 17 Ph 2	Artillery Digital Terminal Control System	Land	Land Combat	32
LAND 19 Ph 7B	Ground Based Air & Missile Defence Enhancements or Replacement	Land	Land Combat	34
LAND 159 Ph 1	ADF Small Arms Replacement	Land	Land Combat	35
LAND 907 Ph 2	Main Battle Tank Upgrade	Land	Land Combat	36
SEA 1000 Ph 3	Future Submarine – Weapons	Future Submarine	Future Submarine	37
SEA 1000 Ph 4	Future Submarine – Maritime Based Strategic Strike	Maritime	Maritime Strike	38
SEA 1360 Ph 1	Maritime Extended Range Air Defence	Maritime	Surface Combatant	39
SEA 1442 Ph 5	Maritime Communication Modernisation	Maritime	Surface Combatant Systems	40
SEA 4000 PH 4	Air Warfare Destroyer (AWD) – Maritime Based Strategic Strike	Maritime	Maritime Strike	41
SEA 5000 Ph 1	Future Frigate	Maritime	Surface Combatant	43
SEA 5000 Ph 2	Future Frigate – Weapons	Maritime	Surface Combatant	44
SEA 5000 Ph 3	Future Frigate – Maritime Based Strategic Strike	Maritime	Maritime Strike	45

1. Not Sponsored by CDG

AEROSPACE AEROSPACE BATTLESPACE MANAGEMENT

AIR 5077 Phase 5B

AEW&C Mid-Life Upgrade

AIR 5077

Background

The Wedgetail Airborne Early Warning and Control (AEW&C) capability delivered under AIR 5077 comprises six aircraft, associated support systems and facilities. The AEW&C operational environment has evolved significantly since initial acquisition contract signature and the capability must remain interoperable with ADF assets and partners. Additionally, Defence must anticipate the introduction of new technologies.

The remainder of the AIR 5077 program comprises the following phases:

- Phase 4 is a capability study to inform Phase 5B AEW&C Mid-Life Upgrade.
- Phase 5A will complete mandatory upgrades that will ensure compliance with evolving military and civilian standards.
- The AEW&C capability is a critical Command & Control (C2) node and ISR platform, and interoperability with ADF assets (both extant and emergent) and coalition partners is pivotal to the operational effectiveness of the capability. Phase 5B is intended to implement a number of growth and enabler upgrades.

AIR 5077 Phase 5B

AEW&C MID-LIFE UPGRADE

Scope

The AEW&C capability is a critical Command & Control (C2) node and Intelligence, Surveillance and Reconnaissance (ISR) platform and must continue to evolve in an increasingly complex, networked environment. Interoperability with ADF assets (both extant and emergent) and partners is pivotal to the continued operational effectiveness of the AEW&C capability.

Planned Schedule

First Pass Approval	FY 2019-20 to FY 2021-22
Year-of-Decision	FY 2021-22 to FY 2023-24
Initial Operational Capability	FY 2025-26 to FY 2027-28

Point of Contact

Capability Development Group:	Deputy Director Battlespace Management Phone: (02) 6265 2216
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AEROSPACE AEROSPACE BATTLESPACE MANAGEMENT

AIR 5333 Phase 2

Vigilare Upgrade

AIR 5333

Background

The Vigilare system delivered under AIR 5333 Phase 1 provides the Royal Australian Air Force (RAAF) with an enhanced Air Defence Ground Environment (ADGE) command, control and communications capability.

AIR 5333 Phase 2 plans to maintain the effectiveness of the Vigilare capability in an evolving Network Centric Warfare (NCW) environment and to assure long term supportability.

AIR 5333 Phase 2

Vigilare Upgrade

Scope

AIR 5333 Phase 2 is intended to incorporate emerging technologies such as Variable Message Format (VMF), Link 22, Cooperative Engagement Capability (CEC), and integrated ESM/Intelligence sub-systems. This phase will also consider the replacement of the Air Battle Management (ABM) training facility at the Eastern Region Operations Centre (EASTROC), and an enhanced simulation capability at both EASTROC and the Northern Region Operations Centre (NORTHROC).

Planned Schedule

First Pass Approval	FY 2018-19 to FY 2020-21
Year-of-Decision	FY 2020-21 to FY 2022-23
Initial Operational Capability	FY 2023-24 to FY 2025-26

Point of Contact

Capability Development Group:	Deputy Director Battlespace Management Phone: (02) 6265 5534
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AEROSPACE INTEGRATED AEROSPACE SYSTEMS

JP 129 Phase 3

Tactical Unmanned Aerial Vehicle –
Enhancements/Upgrades

JP 129

Background

JP 129 Phase 2 (approved) is providing Tactical Unmanned Aerial Vehicles (TUAVs) to support land forces on operations. These systems will have a planned Life of Type (LOT) of 10 years. This seemingly short life is due to the technological advancements that are being made to Unmanned Aerial Systems (UAS) and payloads.

JP 129 Phase 3 will provide an ongoing organic Intelligence, Surveillance and Reconnaissance (ISR) capability for land force operations, as well as provision of a system that can be operated from or within confined areas (such as an urban environment).

JP129 Phase 3

Tactical Unmanned Aerial Vehicle – Enhancements/Upgrades

Scope

This phase will provide enhancements to the ADF TUAV capability. The Phase 3 TUAV capability will be informed by experience from the Phase 2 capability, and will leverage off technological development in system and sensor design and employment.

Advances in sensor technology design, output and integration into UAS as well as platform design and ground system common architectures are expected to continue. Enhancement/upgrade of the TUAV capability is expected to leverage off these developments, with the Army in particular benefiting from enhanced capabilities.

Planned Schedule

First Pass Approval	FY 2016-17 to FY 2019-20
Year-of-Decision	FY 2019-20 to FY 2022-23
Initial Operational Capability	FY 2023-24 to FY 2025-26

Point of Contact

Capability Development Group:	Deputy Director Emerging Systems Phone: (02) 6265 6202
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LAND LAND SUPPORT

JP 154

JP 154 Phase 3B

Joint Counter Improvised
Explosive Device

Background

The ADF's Counter Improvised Explosive Device (CIED) capability encompasses a range of systems and measures to mitigate or defeat the effects of an adversary's use of IEDs. JP 154 aims to develop those CIED systems and measures in accordance with strategic priorities while remaining sufficiently flexible to respond to unpredictable changes in the threat environment and take full advantage of technological advances.

JP 154 Phase 3 has been split into two sub phases: JP 154 Phase 3A (Project Ningau) gained Government approval in December 2011 and has provided route clearance systems in response to operational requirements; the remaining capabilities will be sought under JP 154 Phase 3B.

JP 154 Phase 3B

Joint Counter Improvised Explosive Device

Scope

Phase 3B will continue the technology refresh of current Force Protection Electronic Counter Measure (FPECM) and CIED systems and potentially extend their employment to additional platforms. Phase 3B also aims to replace existing Explosive Ordnance Disposal (EOD) robots and further develop the ADF's route clearance capability.

Planned Schedule

First Pass Approval	FY 2017-18 to FY 2018-19
Year-of-Decision	FY 2019-20 to FY 2020-21
Initial Operational Capability	FY 2021-22 to FY 2022-23

Point of Contact

Capability Development Group:	Deputy Director Engineer/CBRNE Phone: (02) 6265 2660
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INTEGRATED CAPABILITY EXTERNAL

JP 1544 Phase 2

Enterprise Content
Management System
Enhancement

JP 1544

Background

JP 1544 plans to improve Defence's levels of effectiveness and efficiency in managing its holdings of physical and electronic records, and to ensure ongoing compliance with legislated and standards-based mandatory Commonwealth record keeping obligations.

The project will leverage off additional capability that the selected solution might provide in order to realise additional benefits that contribute towards meeting the information and content management business needs of Defence users accessing the Defence Protected and Secret Networks.

The solution will overcome deficiencies associated with the use of disparate records and document management systems across the Department through utilisation of a standard Enterprise Content Management (ECM) capability, standardisation of business processes and enhanced capability that enables departmental knowledge management and business intelligence initiatives.

JP 1544 Phase 1 (unapproved) is detailed in the Public Defence Capability Plan 2012. The phase is intended to deliver a corporate ECM capability across the Defence business and operational domains.

ECM consists of the following critical capabilities:

- Content-Focused Business Process Management (BPM);
- Production Imaging;
- Document Management;
- Document-Centric Collaboration;
- Records Management;
- Web Content Management (WCM);
- Electronic Forms;
- Digital Asset Management; and
- Architectural Flexibility.

JP 1544 Phase 2

Enterprise Content Management System Enhancement

Scope

This phase is intended to deliver an evolutionary development/replacement of the initial capability toolset and will cover technological advancements in records management.

Planned Schedule

First Pass Approval	FY 2016-17 to FY 2018-19
Year-of-Decision	FY 2020-21 to FY 2021-22
Initial Operational Capability	FY 2021-22 to FY 2023-24

Point of Contact

Chief Information Officer Group: Assistant Secretary Enterprise Architecture Branch
Phone: (02) 6144 4071

MARITIME INTELLIGENCE AND GEOSPATIAL

JP 1771 Phase 2

Geospatial Support Systems
for the Land Force (Upgrade)

JP 1771

Background

JP 1771 will modernise the Geospatial Support System (GSS), which provides for the integrated measurement, analysis, management and presentation of geospatial data, imagery and information to ADF forces. It will sustain geospatial support to both deployed forces and those conducting operations and training within Australia. While it will be primarily focussed on equipping the 1st Topographical Survey Squadron, the project will also provide for other Geospatial Information Systems (GIS) and survey elements.

The GSS will provide rapid support to the ADF Network Centric Warfare (NCW) environment using available Information and Communications Technology (ICT) infrastructures and will comprise people, processes, equipment, data and ICT sub-systems. It will inform an accurate Common Operating Picture and situational awareness across the theatre of operations, and will support new weapon targeting systems and accurate delivery of weapon effects.

Geospatial data and information will be used to ascertain the impact of the physical environment on the conduct of military operations and assist with infrastructure planning and development. Selected outputs will also inform strategic geospatial data, imagery and information resources and planning activities.

JP 1771 Phase 1 (unapproved) is detailed in the Public Defence Capability Plan 2012. The phase aims to modernise and automate the land geospatial capability to enhance the collection, processing and presentation of geospatial data with minimum production time and effort.

JP 1771 Phase 2

Geospatial Support Systems for the Land Force (Upgrade)

Scope

JP 1771 Phase 2 will enhance and continue to modernise the ability to collect, process and manage geospatial data, and present geospatial data, imagery and information to the ADF.

Phase 2 will improve geospatial engineering capabilities to sustain the provision of support to deployed forces, fill capability gaps unable to be filled in Phase 1 and to support infrastructure tasks in the deployed environment. The project will focus on the delivery of geospatial information to benefit operational planners and other users involved in the conduct of operations, training and non-warlike tasks.

The capability needs analysis for the project has not started and the project requirements will be refined nearer to First Pass.

Planned Schedule

First Pass Approval	FY 2018-19 to FY 2019-20
Year-of-Decision	FY 2020-21 to FY 2021-22
Initial Operational Capability	FY 2022-23 to FY 2023-24

Point of Contact

Capability Development Group: Deputy Director Imagery and Geospatial Information Systems
Phone: (02) 6265 3827

LAND
JOINT C3

JP 2030 Phase 9

ADF Joint Command
Support Environment

JP 2030

Background

The Joint Command Support Environment (JCSE) is evolving from the development and integration of several new and existing command support systems, including the Joint Command Support System, Maritime Command Support System, Air Command Support System, Special Operations Command Support Systems and the Battlefield Command Support System (part of Project LAND 75).

Other phases include:

- Phases 1 – 6 (complete) delivered a 'core' command support system to support the planning and conduct of joint operations. This system was delivered to strategic, operational and tactical level headquarters as well as selected ADF units.
- Phases 7/7B (complete) provided further roll-out and enhancement of the Joint and Air Command Support Systems.
- Phase 8 (approved) builds upon the capability delivered under the previous phases of JP 2030 and in particular extends functionality through the development of applications that support the planning and conduct of ADF networked operations. Phase 8 is primarily focused on the delivery of these services to Headquarters Joint Operations Command (HQ JOC) and other fixed headquarters locations.

JP 2030 Phase 9

ADF Joint Command Support Environment

Scope

Phase 9 will further establish the framework for the JCSE that will continue to consolidate existing Command Support Systems into a single integrated environment linking all elements of the ADF. It is proposed to extend the JCSE to include Battlefield and Maritime command support requirements.

Planned Schedule

First Pass Approval	FY 2016-17 to FY 2017-18
Year-of-Decision	FY 2017-18 to FY 2018-19
Initial Operational Capability	FY 2019-20 to FY 2020-21

Point of Contact

Capability Development Group: Deputy Director Command and Control Systems
Phone: (02) 6265 4086

MARITIME INTELLIGENCE AND GEOSPATIAL

JP 2044 Phase 6

Defence Geospatial
Intelligence Capability
Enhancement

JP 2044

Background

JP 2044 is a multi-phased project designed to develop and sustain a Defence capability to exploit geospatial data gathered from multiple sources including space-based surveillance.

Other phases include:

- Phase 2A (complete) has delivered system updates and conducted risk reduction activities in preparation for the main acquisition phase.
- Phase 2B (complete) was the major acquisition phase for Information Technology (IT), communications and training infrastructure to support a space-based surveillance capability.
- Phase 4A (unapproved) is further detailed in the Public Defence Capability Plan 2012. This phase will commence the implementation of a modernised architecture for the Australian Geospatial Intelligence (GEOINT) system.
- Phase 4B (unapproved) is further detailed in the Public Defence Capability Plan 2012. This phase seeks to further improve the allied collaborative environments and national collaboration by networking and developing interoperability with non-Defence intelligence and other government agencies.
- Phase 5 (unapproved) is detailed in the Public Defence Capability Plan 2012. This phase seeks to further improve allied collaborative environments as well as national collaboration.

JP 2044 Phase 6

Defence Geospatial Intelligence Capability Enhancement

Scope

Phase 6 seeks to implement a significant enhancement of Defence GEOINT capability, reflecting changes in requirements, GEOINT collection capabilities and information technologies over the next decade.

Planned Schedule

First Pass Approval	FY 2017-18 to FY 2019-20
Year-of-Decision	FY 2019-20 to FY 2020-21
Initial Operational Capability	FY 2020-21 to FY 2021-22

Point of Contact

Capability Development Group: Deputy Director Imagery and Geospatial Information Systems
Phone: (02) 6265 6426

MARITIME INTELLIGENCE AND GEOSPATIAL

JP 2065 Phase 3

Integrated Broadcast Service

JP 2065

Background

This service aggregates and manages tactically significant information produced by Australian and allied intelligence, surveillance and reconnaissance organisations and disseminates it directly to deployed forces.

JP 2065 Phase 1 (approved) is delivering a proof-of-concept Integrated Broadcast Service (IBS) functionality to the ADF. This functionality included the establishment of an Information Management Element (IME) which correlates and bridges information between a number of computer networks, satellite links and real time tactical data links. This capability forms an important component of the ADF's Tactical Information Exchange Environment while concurrently supporting closer allied interoperability.

JP 2065 Phase 2 (unapproved) will further extend the Phase 1 capability by upgrading the Australian Integrated Broadcast Service to maintain compatibility with allies, introducing new system capabilities and extending the ADF roll-out of the system.

JP 2065 Phase 3

Integrated Broadcast Service

Scope

Phase 3 aims to further develop the IBS capability through investigation of new radio technologies. It may also expand the user base through improved network dissemination.

Planned Schedule

First Pass Approval	FY 2016-17 to FY 2017-18
Year-of-Decision	FY 2017-18 to FY 2018-19
Initial Operational Capability	FY 2018-19 to FY 2019-20

Point of Contact

Capability Development Group:	Deputy Director Intelligence Systems Phone: (02) 6265 6079
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LAND
EXTERNAL

JP 2077 Phase 2D

Improved Logistics
Information Systems

JP 2077

Background

The Defence Materiel Logistic Information System (MLIS) exists to support both day-to-day operations and the strategic management of the Department's materiel resources. It underpins:

- The generation of combat power by providing ADF units with logistics information systems support in the Joint environment;
- The provision of support to Defence's business activities; and
- High-level reporting to Government.

JP 2077 is a multi-phased proposal to improve Defence's Logistics Information Systems:

- Phase 1 (complete) set the context for the program and confirmed the scope and conceptual requirements for the improved MLIS.
- Phase 2A (complete) delivered a range of targeted products that served to refine the direction of the program. Together, these products established the enabling structures, processes and plans to ensure that the following phases pursued a 'whole of capability' approach to the development of the future MLIS.
- Phase 2B.1 (in acquisition) is upgrading the Standard Defence Supply System (SDSS) from Mincom Information Management System (MIMS) v4 to MIMS v6, which is a MOTS variant of the current v5 product known as 'Ellipse'. This upgrade is aimed at providing the foundation system for the establishment of an integrated MLIS, with an approved financial module that is compliant with the Australian Equivalent International Financial Reporting Standards.
- Phase 2C (complete) delivered an interim Radio Frequency Identification (RFID) asset tracking system including both hardware and software, based on the proprietary Savi Tag system.
- Phase 3 (DCP) will enhance the ADF Logistics Information and communication Technology (IDT) deployable capability by extending the reach of critical core functions to units on operations and delivering an integrated in-transit cargo visibility system. This will be achieved through full integration with the core transactional system of the ADF's Military Integrated Logistics Information System, including standardised user interface.

LAND
EXTERNAL

JP 2077 Phase 2D

Improved Logistics
Information Systems

JP 2077 Phase 2D

Improved Logistics Information Systems

Scope

JP 2077 aims to incrementally upgrade and enhance Defence's Logistics Information Systems to ensure leading edge support continues to be provided in support of war fighting and corporate objectives.

This phase will leverage and integrate existing systems and acquire new systems and capabilities to bring about enhancements in the areas of engineering and maintenance management (including repairable Items), enterprise reporting and classified assets management. Phase 2D also plans to address the underlying information systems architecture in support of phase components. The business process improvement and transformation activities necessary to exploit these initiatives are also part of this phase.

Planned Schedule

First Pass Approval	Completed
Year-of-Decision	FY 2016-17 to FY 2017-18
Initial Operational Capability	FY 2016-17 to FY 2018-19

Point of Contacts

Capability Development Group:	Project Manager Materiel Logistic Information Systems Phone: (02) 6265 2335
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LAND LAND COMBAT

JP 3011 Phase 1

Joint Non-Lethal Capability

JP 3011

Background

The current ADF Joint Non-Lethal Capabilities (JNLC) are weapons-based, disparate in nature and limited in the variety of effects and the distance over which these effects can be generated.

Recent ADF operations have demonstrated limitations in the use of options that rely on lethal force. A robust JNLC can expand the spectrum of response options available to commanders and soldiers to provide a flexible capability to meet mission requirements.

The JNLC can offer deployed ADF force elements additional tools to permit a graduated response to a threat, where an instantaneous lethal response is not immediately appropriate. By developing enhanced and modernised JNLC options, the ADF will be able to achieve more precise and discriminate effects and employ a broader range of response options.

JP 3011 Phase 1

Joint Non-Lethal Capability

Scope

This phase seeks to update the non-lethal capabilities of the ADF across all three Services, ensuring these capabilities continue to be relevant to the threats faced now and in the future. This phase will replace existing non-lethal weapons and provide some enhanced non-lethal capabilities.

Planned Schedule

First Pass Approval	FY 2016-17 to FY 2017-18
Year-of-Decision	FY 2017-18 to FY 2018-19
Initial Operational Capability	FY 2018-19 to FY 2019-20

Point of Contact

Capability Development Group:	Project Manager Small Arms Phone: (02) 6265 1863
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LAND
LAND COMBAT

JP 3025 Phase 2

Deployable Special
Operations Engineer Regiment
(SOER) Capability

JP 3025

Background

Global events and recent deployments have heightened awareness of the potential for large-scale Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE) incidents. The Special Operations Engineer Regiment (SOER) was raised to provide responses to domestic and overseas CBRNE incidents.

JP 3025 Phase 2

Deployable Special Operations Engineer Regiment (SOER) Capability

Scope

JP 3025 Phase 2 will continue to develop and mature the counter-CBRNE capability established in Phase 1. This may include additional equipment and specialist training.

Planned Schedule

First Pass Approval	FY 2016-17 to FY 2017-18
Year-of-Decision	FY 2017-18 to FY 2018-19
Initial Operational Capability	FY 2019-20 to FY 2020-21

Point of Contact

Capability Development Group: Deputy Director Special Operations
Phone: (02) 6265 4643

LAND LAND COMBAT

LAND 17

LAND 17 Phase 2

Artillery Digital Terminal
Control System

Background

The Australian Army's current offensive support system was based on procedures that date back to the 1960s, and ammunition and howitzer technologies developed in the 1970s that were introduced into Australian service in the 1980s. The changing nature of operations in land and littoral environments require the Army's offensive support system to apply precise lethal and non-lethal effects from mortars, howitzers, ships and aircraft over large areas of the battlefield. The modernised offensive support system will be characterised by responsiveness, high tactical mobility and increased autonomy. It is intended that the modernised system will complement current and future ADF surveillance, target acquisition, land logistic capabilities and the Networked Army.

LAND 17 is a program of projects that will enhance the Australian Army's indirect fire system through the replacement of the 105mm Hamel and 155mm M198 Howitzer fleets with towed lightweight 155mm guns, enhanced battle management systems and targeting systems for fire support and precision/near precision guided munitions.

LAND 17 is split into several phases:

- Phase 1A (approved) is acquiring four batteries (plus training and support guns) of the M777A2 Lightweight Howitzer, near precision guided munitions – the Precision Guidance Kit course correcting fuse, and a networked Battle Management System-Fires which includes the Advanced Field Artillery Tactical Data System and its communications bearers.
- Phase 1B (approved) is acquiring a Digital Terminal Control System capability to improve coordination and terminal control of air, maritime and land fires.
- Phase 1C.1 is further detailed in the Public Defence Capability Plan 2012, it will acquire a further two batteries (plus training and support guns) of the M777A2 Lightweight Howitzer.
- Phase 1C.2 is further detailed in the Public Defence Capability Plan 2012, it will investigate, select, acquire and certify a new ammunition system for use within the M777A2 Lightweight Howitzers acquired under earlier phases.

LAND LAND COMBAT

LAND 17 Phase 2

Artillery Digital Terminal
Control System

LAND 17 Phase 2

Artillery Digital Terminal Control System

Scope

The Digital Terminal Control System comprises a number of sub-component systems. To retain linkages with a variety of air, maritime and land platforms the sub-systems will require assessment and refreshes of hardware and software on a continuous basis, to remain effective in an increasingly complex operational and high technology defined environment.

Planned Schedule

First Pass Approval	Combined pass
Year-of-Decision	FY 2018-19 to FY 2019-20
Initial Operational Capability	FY 2020-21 to FY 2021-22

Point of Contact

Capability Development Group:	Deputy Director Combat Support
	Phone: (02) 6265 3933

LAND LAND COMBAT

LAND 19

LAND 19 Phase 7B

Ground Based Air and Missile
Defence Enhancements or
Replacement

Background

LAND 19 Phase 7 is centred upon a force protection capability by Ground Based Air and Missile Defence (GBAMD) that will be able to sense, manage and mitigate the weapon and sensor effects of fixed and rotary wing platforms, unmanned aerial vehicles (UAV), stand-off weapons, Counter-Rocket, Artillery and Mortar/Missile (C-RAM). The mitigation of the weapon and sensor effects will be scalable from 'Sense and Warn' (S&W) (consequence reduction) to 'interception' (threat removal). Concurrently the capability will also provide airspace surveillance to ensure friendly force deconfliction of friendly artillery, mortars, fixed and rotary wing platforms, and UAVs.

The GBAMD capabilities will be managed by a Command, Control, Communications, Computing and Intelligence (C4I) system that will be capable of operating autonomously and/or within a joint/coalition air and missile defence network. This capability will provide greater fidelity in joint and coalition airspace and contribute to ADF airspace management and air land integration.

LAND 19 Phase 7B

Ground Based Air and Missile Defence Enhancements or Replacement

Scope

Phase 7B will build upon the GBAMD 'Sense and Warn' Force Protection capability procured under Phase 7A. It will absorb the Phase 7A RAM 'Sense and Warn' functionality in to a GBAMD Force Protection capability that will be able to sense, manage and mitigate the weapon and sensor effects.

Planned Schedule

First Pass Approval	FY 2016-17 to FY 2017-18
Year-of-Decision	FY 2017-18 to FY 2018-19
Initial Operational Capability	FY 2020-21 to FY 2021-22

Point of Contact

Capability Development Group:	Project Manager Air Defence Phone: (02) 6265 4441
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LAND LAND COMBAT

LAND 159 Phase 1

ADF Small Arms Replacement

LAND 159

Background

The current ADF fleet of small arms will reach life of type during the period 2021-2025. Project LAND 159 Phase 1 will replace most of the ADF small arms with capability solutions for the following requirements:

- Personal defence weapon;
- Individual combat weapons; and
- Support weapons.

LAND 159 Phase 1

ADF Small Arms Replacement

Scope

Phase 1 will replace some or all of the current fleet of ADF small arms with a range of small arms solutions that provide improved target acquisition and lethality.

Planned Schedule

First Pass Approval	FY 2019-20 to FY 2021-22
Year-of-Decision	FY 2021-22 to FY 2022-23
Initial Operational Capability	FY 2022-23 to FY 2023-24

Point of Contact

Capability Development Group:	Project Manager Small Arms Phone: (02) 6265 1863
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LAND LAND COMBAT

LAND 907

LAND 907 Phase 2

Main Battle Tank Upgrade

Background

The M1A1 Abrams Integrated Management (AIM) Situational Awareness (SA) Main Battle Tank (MBT) procured under LAND 907 Phase 1 provided the ADF with a more modern, survivable and interoperable MBT capability in order to support the combined arms team in close combat. Fifty-nine M1A1 AIM SA MBTs and seven M88A2 Hercules Armoured Recovery Vehicles have been introduced into service under LAND 907 Phase 1. LAND 907 Phase 2 will maintain the operational capability edge provided by the M1A1 fleet out to 2030.

LAND 907 Phase 2

Main Battle Tank Upgrade

Scope

Phase 2 is to continue the Land force war fighting advantage afforded by LAND 907 Phase 1 through delivery of enhancements in knowledge, lethality, mobility, survivability and sustainability of the M1A1 MBT out to its Life of Type of 2030.

Phase 2 will provide a series of upgrades to achieve integration of developing Network Enabled Capability interface control systems; operator, supervisor, instructor and support training; training and simulation equipment and technical support; capability enhancements and training technology review. Integration of the MBT capability into the Combined Arms Fighting System is a key consideration as the project and LAND 400 develop.

Planned Schedule

First Pass Approval	FY 2016-17 to FY 2017-18
Year-of-Decision	FY 2017-18 to FY 2019-20
Initial Operational Capability	FY 2019-20 to FY 2021-22

Point of Contact

Capability Development Group:	Project Manager Combat (Heavy)
	Phone: (02) 6265 4918

FUTURE SUBMARINES FUTURE SUBMARINE

SEA 1000 Phase 3

Future Submarine - Weapons

SEA 1000

Background

In the 2009 White Paper, the Government has taken the view that our future strategic circumstances necessitate a substantially expanded fleet of 12 submarines. This expanded capability is required to sustain a force at sea large enough in a crisis or conflict to be able to defend our approaches (including at considerable distance from Australia, if necessary), protect and support other ADF assets, and undertake certain strategic missions where the stealth and other operating characteristics of highly-capable advanced submarines would be crucial.

SEA 1000 will provide Australia with a new and more potent submarine capability with greater range, longer patrol endurance and increased capability compared with the Collins Class submarine. Key capabilities will be in the areas of anti-submarine warfare; anti-surface warfare; strike; intelligence, surveillance and reconnaissance; electronic warfare; mine warfare; and support to advance force operations.

It is expected that the Future Submarine project will undertake a competitive, staged acquisition process to acquire this capability. The project will be the largest and most complex Defence acquisition yet conducted. It is expected to be considered by Government on multiple occasions as information is gathered that facilitates Government decision making.

Other phases of this program will be:

- Phase 1 & 2: Acquisition
- Phase 4: Strike Capability

SEA 1000 Phase 3

Future Submarine - Weapons

Scope

This phase of the project will provide the selected weapons for the Future Submarine fleet and the weapons required for Test and Evaluation, training and tactical development (Raise, Train, Sustain).

Planned Schedule

First Pass Approval	FY 2018-19 to FY 2019-20
Year-of-Decision	TBD
Initial Operational Capability	It is anticipated that IOC will not be achieved before 2025

Point of Contact

Capability Development Group:	Director Future Submarine Capability Development Phone: (02) 6265 2262
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MARITIME MARITIME STRIKE

SEA 1000 Phase 4

Future Submarine - Maritime
Based Strategic Strike

SEA 1000

Background

As part of the 2009 Defence White Paper preparations, significant work was undertaken to identify and quantify the maritime capability developments that would be required to meet Government's expectations. SEA 1000, the Future Submarine and maritime based land attack cruise missile (LACM) capability, was a result of that process.

SEA 1000 will provide Australia with a new and more potent capability with greater range, longer patrol endurance and increased capability compared with the Collins Class submarine. Key capabilities will be in the areas of anti-submarine warfare; anti-surface warfare; strike; intelligence, surveillance and reconnaissance; electronic warfare; mine warfare; and support to advance force operations.

It is expected that the Future Submarine project will undertake a competitive, staged acquisition process to acquire this capability. The project will be the largest and most complex Defence acquisition yet conducted. It is expected to be considered by Government on multiple occasions as information is gathered that facilitates Government decision making.

Other phases of this program will be:

- Phase 1 & 2: Acquisition
- Phase 3: Future Submarine Weapons

SEA 1000 Phase 4

Future Submarine - Maritime Based Strategic Strike

Scope

This phase intends to provide for the acquisition of maritime-based land-attack cruise missiles, weapon control and mission planning sub-systems for the Future Submarines, as well as an integrated logistic support system including documentation, training and support equipment. The systems will complement the land attack strike weapon systems proposed for the Air Warfare Destroyer (AWD) (SEA 4000 Phase 4) and Future Frigate (SEA 5000 Phase 3) to broaden the Government's strategic strike options.

Planned Schedule

First Pass Approval	FY 2016-17 to FY 2017-18
Year-of-Decision	TBD
Initial Operational Capability	It is anticipated that IOC will not be achieved before 2025

Point of Contact

Capability Development Group:	Deputy Director Surface Combatant and Maritime Strike Phone: (02) 6265 4031
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MARITIME SURFACE COMBATANT

SEA 1360 Phase 1

Maritime Extended Range
Air Defence

SEA 1360

Background

The Royal Australian Navy's (RAN) Hobart Class Destroyers being acquired through SEA 4000 Phase 3 are intended to provide an area air defence capability utilising the Standard Missile-2 (SM-2) medium range surface-to-air missile (SAM).

In order to enhance the air defence capabilities of the Hobart Class Destroyers against emerging air threats the 2009 White Paper stated that the Hobart Class Destroyers will be equipped with the Standard Missile-6 (SM-6) long-range SAM. The SM-6 missile is the most advanced weapon of its type. When combined with the complementary Cooperative Engagement Capability (CEC) of the Hobart Class Destroyers to enable the ship to act as part of a wider 'grid' of sensor and weapon platforms that can share surveillance and targeting data, the SM-6 missile will extend the air protection offered by the Hobart Class Destroyers.

SEA 1360 Phase 1

Maritime Extended Range Air Defence

Scope

SEA 1360 Phase 1 is to deliver the SM-6 Extended Range Active Missile (ERAM) capability for the Hobart Class Destroyers.

Planned Schedule

First Pass Approval	FY 2016-17 to FY 2018-19
Year-of-Decision	FY 2018-19 to FY 2020-21
Initial Operational Capability	FY 2021-22 to FY 2023-24

Point of Contact

Capability Development Group: Deputy Director Surface Combatant and Maritime Strike
Phone: (02) 6265 4031

MARITIME SURFACE COMBATANT SYSTEMS

SEA 1442 Phase 5

Maritime Communication
Modernisation

SEA 1442

Background

SEA 1442 is a multi-phased program that aims to upgrade and modernise maritime communications systems on RAN ships to allow networked communications between selected major surface vessels within a task group. The proposal incorporates upgrade of the communications and information management infrastructure of the RAN.

Other phases include:

- Phase 1 (complete) was a scoping study.
- Phase 2B (complete) was a project definition study which refined the scope of work for phases 3 and 4.
- Phase 3 (in progress) is providing an initial enhanced ADF maritime communications capability with the introduction of the Mobile Tactical Wide Area Network (MTWAN) to a number of major fleet units.
- Phase 4 (unapproved) will enhance and modernise the communications capability of the ANZAC Class of ships.

SEA 1442 Phase 5

Maritime Communication Modernisation

Scope

SEA 1442 Phase 5 will enhance and modernise the communications capability of the Canberra Class LHD and Hobart Class Destroyers and other legacy platforms. This will include:

- Modernisation and improvements to the technology for these platforms baselined on MTWAN capability being delivered by SEA 1442 Phases 3 & 4; and
- Provision of communications systems improvements.

Planned Schedule

First Pass Approval	FY 2016-17 to FY 2017-18
Year-of-Decision	FY 2018-19 to FY 2019-20
Initial Operational Capability	FY 2020-21 to FY 2022-23

Point of Contact

Capability Development Group:	Project Manager Communications Sea
	Phone: (02) 6265 5202

MARITIME MARITIME STRIKE

SEA 4000

SEA 4000 Phase 4

Air Warfare Destroyer (AWD) –
Maritime Based Strategic Strike

Background

SEA 4000 is a multi-phased project to acquire a multi-role surface combatant with a strong emphasis on above-water warfare. The Hobart Class Destroyer acquired through the Air Warfare Destroyer (AWD) Project, will incorporate an integrated combat system, which uses the United States Navy (USN) Aegis Combat System, and a platform system based upon the design of the Spanish Armada's F-104 warship, with specified changes from the F-105 baseline.

Previous phases were:

- Phase 0 (complete): Capability studies undertaken between 2001 and 2002.
- Phase 1 (complete): Project definition between 2002 and 2005.
- Phase 2 (complete): Project design phase from 2005 to 2007.
- Phase 3 (approved): Acquisition and build of three Hobart Class Destroyers and associated logistic support. Construction of the lead ship commenced in March 2010 and the forecast delivery is 2015.
- Phase 3.2 (approved): Standard Missile-2 (SM-2) conversion and upgrade.
- Phase 3.3 (unapproved): Combat System Ship Qualification Trials for three Hobart Class Destroyers.

Phase 4 provides for the acquisition of a maritime-based land-attack cruise missile capability for the Hobart Class Destroyers that will provide the Government with additional options to conduct long-range precision strike operations against hardened, defended and difficult to access targets, while minimising the exposure of ADF platforms and personnel to attack by enemy forces. The systems will complement the maritime-based land-attack cruise missile capability proposed for the Future Submarine (SEA 1000 Phase 4) and Future Frigate (SEA 5000 Phase 3).

MARITIME MARITIME STRIKE

SEA 4000 Phase 4

Air Warfare Destroyer (AWD) –
Maritime Based Strategic Strike

SEA 4000 Phase 4

Air Warfare Destroyer (AWD) - Maritime Based Strategic Strike

Scope

This phase will provide for the acquisition of maritime-based land-attack cruise missiles, weapon control and mission planning sub-systems for the Hobart Class Destroyer, and an integrated logistics support system including documentation, training and support equipment. The systems will be interoperable with the broader ADF Network Centric Warfare (NCW), Joint Fires and Targeting capabilities and will complement the common land strike weapons systems proposed for the Future Submarines (SEA 1000 Phase 4) and Future Frigates (SEA 5000 Phase 3).

Planned Schedule

First Pass Approval	FY 2016-17 to FY 2019-20
Year-of-Decision	FY 2019-20 to FY 2021-22
Initial Operational Capability	FY 2022-23 to FY 2024-25

Point of Contact

Capability Development Group: Deputy Director Surface Combatant and Maritime Strike
Phone: (02) 6265 4031

MARITIME SURFACE COMBATANT

SEA 5000 Phase 1

Future Frigate

SEA 5000

Background

The 2009 White Paper stated that a fleet of eight new Future Frigates will be acquired. They will be larger than the ANZAC Class and be designed and equipped with a strong emphasis on submarine detection and response options and capable of independent and task group operations. They will be equipped with an integrated sonar suite that includes a long-range active towed-array sonar, a maritime-based land-attack cruise missile capability, and be able to embark a combination of naval combat helicopters and maritime Unmanned Aerial Vehicles (UAV).

SEA 5000 Phase 1

Future Frigate

Scope

This phase will focus on project definition, design and building of a multi-role Future Frigate.

Planned Schedule

First Pass Approval	FY 2018-19 to FY 2020-21
Year-of-Decision	FY 2021-22 to FY 2023-24
Initial Operational Capability	FY 2027-28 to FY 2029-30

Point of Contact

Capability Development Group:	Deputy Director Surface Combatants Phone: (02) 6265 5086
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MARITIME SURFACE COMBATANT

SEA 5000 Phase 2

Future Frigate - Weapons

SEA 5000

Background

The 2009 White Paper stated that a fleet of eight new Future Frigates will be acquired. They will be larger than the ANZAC Class and be designed and equipped with a strong emphasis on submarine detection and response options and capable of independent and task group operations.

SEA 5000 Phase 2

Future Frigate - Weapons

Scope

This phase of the project will provide the inventory of the above water and underwater weapons for the Future Frigate including weapons required for test and evaluation, training, tactical development and reserve stockholdings. This phase specifically excludes acquisition of the maritime-based land attack cruise missile capability which will be acquired through SEA 5000 Phase 3.

Planned Schedule

First Pass Approval	FY 2018-19 to FY 2020-21
Year-of-Decision	FY 2021-22 to FY 2023-24
Initial Operational Capability	FY 2027-28 to FY 2029-30

Point of Contact

Capability Development Group:	Deputy Director Surface Combatants Phone: (02) 6265 5086
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MARITIME MARITIME STRIKE

SEA 5000 Phase 3

Future Frigate - Maritime
Based Strategic Strike

SEA 5000

Background

The 2009 White Paper stated that a fleet of eight new Future Frigates will be acquired. They are intended to be designed and equipped with a strong emphasis on submarine detection and response options and capable of independent and task group operations.

As stated in the 2009 White Paper, the incorporation of a land attack cruise missile capability will be integral to the design and construction of the Future Frigate.

SEA 5000 Phase 3

Future Frigate - Maritime Based Strategic Strike

Scope

This phase will provide for the acquisition of maritime-based land-attack cruise missile, weapon control and mission planning sub-systems for the Future Frigate. An integrated logistics support system including documentation, training and support equipment will be provided. The systems will complement the common land attack strike weapons systems proposed for the Future Submarines (SEA 1000 Phase 4) and Air Warfare Destroyer (SEA 4000 Phase 4).

Planned Schedule

First Pass Approval	FY 2018-19 to FY 2020-21
Year-of-Decision	FY 2021-22 to FY 2023-24
Initial Operating Capacity	FY 2027-28 to FY 2029-30

Point of Contact

Capability Development Group:	Deputy Director Surface Combatant and Maritime Strike Phone: (02) 6265 4031
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