

CHAPTER THREE

PLANNED OUTCOME

PERFORMANCE

This chapter explains how the resources identified in Chapter 2 - Resourcing will be used to deliver outputs that contribute to the DMO outcome.

SUMMARY OF OUTCOME AND OUTPUTS

The DMO has one outcome and three outputs. The DMO outcome is that Defence capabilities are supported through efficient and effective acquisition and through-life support of materiel.

Output 1.1 – Management of Capability Acquisition

This output delivers specialist military equipment and associated equipment to Defence. It encompasses all of the DMO's activities in support of the acquisition process, including all pre-approval activities as well as the acquisition process for major and minor capital investments. All DMO Divisions contribute to this output.

Output 1.1 will represent 54 per cent of the DMO's expenditure in 2005-06. The price of Output 1.1 provides for estimated expenditure on specialist military equipment and the DMO's costs in delivering acquisition services.

Output 1.2 – Capability Sustainment

This output delivers the sustainment of specialist military equipment and associated equipment to Defence. It includes the maintenance of equipment and purchasing of inventory, such as explosive ordnance, fuel, stores and spare parts. All DMO Divisions contribute to this output.

Output 1.2 will represent 45.3 per cent of the DMO's expenditure in 2005-06. The price of Output 1.2 provides for estimated expenditure on maintenance and inventory purchases and the DMO's costs in delivering sustainment services.

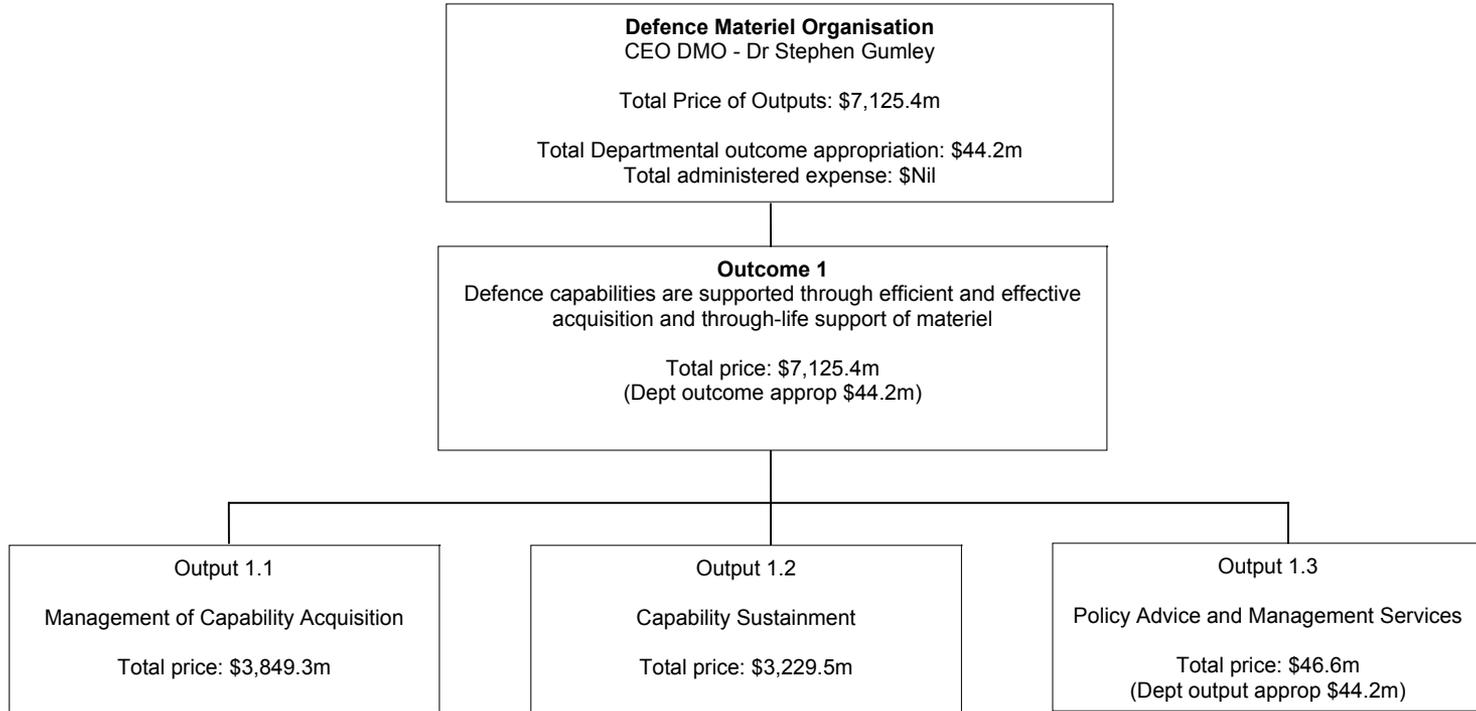
Output 1.3 – Policy Advice and Management Services

This output delivers procurement and industry policy and advice to both the Defence Portfolio and the Government, and those corporate functions that would exist regardless of the scale or nature of the organisation's business.

This output will represent less than one per cent of the DMO's expenditure in 2005-06.

The relationship between activities of the DMO and its outcome is summarised in Figure 3.1, in terms of accrual-based prices rather than cash received from Defence and the Government.

Figure 3.1: Outcomes and output groups and administered items



APPROPRIATIONS AND RESOURCING FOR THE DMO OUTCOME

Departmental Appropriations

The DMO's departmental appropriation is \$44.2m, which funds Output 1.3. This represents less than one per cent of the DMO's total funding. Defence will provide the vast majority of the DMO's resources, in accordance with the prices set out in the Materiel Acquisition Agreements and the Material Sustainment Agreements. The DMO does not have any administered appropriations.

Outcome Resourcing

Outcome One

Table 3.1 below shows how the 2005-06 Budget appropriations translate to total resourcing for Outcome One, including revenue from the Government (appropriation), revenue from other sources (Departmental) and the total price of the outputs. Figure 3.2 displays this information pictorially. The DMO's budget and forward estimates include funding required to support approved activities as well as an estimate of the DMO's share of planned future activities associated with the Defence Capability Plan. Accordingly, the estimates reflect an upward trend across the forward estimates period for Outputs 1.1 and 1.2. The funding requirement for Output 1.3 is steady across the forward estimates in real terms.

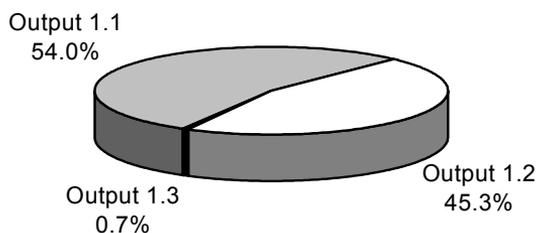
Table 3.1: Total resources for Outcome One

	Budget Estimate 2005-06
	\$'000
Total administered appropriations	-
Departmental appropriations	
Output 1.3 (to DMO special account) ⁽¹⁾	44,211
Sub-total Output 1.3	44,211
Total revenue from Government (appropriations)	44,211
Contributing to price of departmental outputs	0.6%
Revenue from other sources	
Output 1.1 Capability Acquisition (to DMO special account) ⁽¹⁾	
Revenues from Defence	3,849,332
Revenues from external resources	-
Sub-total Output 1.1	3,849,332
Output 1.2 Capability Sustainment (to DMO special account) ⁽¹⁾	
Revenues from Defence	3,038,349
Revenues from external sources	191,152
Sub-total Output 1.2	3,229,501
Output 1.3 Policy Advice and Management Services (to DMO special account) ⁽¹⁾	
Revenues from Defence	-
Revenues from external sources	2,365
Sub-total Output 1.3	2,365
Total revenue from other sources	7,081,198
Total price from departmental outputs	7,125,409
(Total revenue from government and from other sources)	
From Special Account (estimates payments from special account balances)⁽²⁾	
DMO Special Account	7,848,124
Total departmental Special Account outflows	7,848,124
Total estimated resourcing for Outcome One	7,125,409
(total price of outputs and administered appropriations)	
	2005-06
Average staffing level (number)	4,448

Notes

1. Flows into the Special Account are also shown in the receipts column of the Special Account table in Table 2.4 and include GST of \$549.8m.
2. Special Account outflows are shown in the payments column of the Special Account table in Table 2.4 and include GST of \$549.8m. The estimated payments from special account balances are provided by way of note only and do not form part of the total estimated resourcing.

Figure 3.2: Total Resources by Output



PERFORMANCE AND EVALUATION INFORMATION FOR THE DMO OUTCOME

The performance targets for the DMO outcome are the three outputs. In turn, each of the outputs has performance targets, which are listed below. More detail on each of these targets follows.

Table 3.2: Performance targets and planned evaluation of performance of outputs

Output	Performance Target	Planned evaluation of performance
Output 1.1 Management of Capability Acquisition	Project scope, schedule and budget criteria, as agreed between the CEO DMO and the Defence 'customer', and expressed in the Materiel Acquisition Agreements.	Delivery of major and minor capital equipment projects against the Materiel Acquisition Agreement scope, schedule and budget criteria.
Output 1.2 Capability Sustainment	Performance targets agreed between the DMO and Capability Managers will be consistent with enabling the ADF to deliver its operations and capability preparedness requirements as directed by the Government.	Deliver quality, timely and cost effective maintenance, repair, and supply services to the levels and standards agreed by Defence including support to on-going operations.
Output 1.3 Policy Advice and Management Services	Deliver quality policy advice and management services	Within the first year of prescription, the DMO will evaluate the delivery and quality of advice and services.

Performance Target for Output 1.1 – Management of Capability Acquisition

A separate Materiel Acquisition Agreement between the Defence 'customer' and the CEO DMO covers each capability project. Each agreement specifies the project in terms of the scope to be delivered, the schedule for delivery and the budget that is available. The scope description is a reference to underlying capability specifications and key measures of capability effectiveness as selected by the customer. Schedule description is the key milestones covering start-up activities, the contract and in-service activities. Budget information is estimates of percentage spent at each schedule milestone, current expenditure program and current assessment of the adequacy of the available contingency budget. Monthly reports against all Materiel Acquisition Agreement terms will be available as agreed with the Defence customer

Planned resource use for Output 1.1 is \$3,849.3m in 2005-06.

Approved Major Capital Equipment Projects

The DMO manages the part of the Defence investment program that focuses on approved major capital equipment projects. The DMO will manage some 240 projects during 2005-06. The following table and descriptions provide details of the top 30 projects ranked by forecast expenditure in 2005-06, including the budget estimates and schedules for delivery of the capability. Planned

expenditure for the top 30 projects (\$2,853m) represents 77 per cent of the total planned expenditure on major capital equipment projects in 2005-06.

Table 3.3: Top 30 Projects by Forecast 2005-06 Expenditure⁽¹⁾

	Project Number	Approved Project Expenditure	Estimated Cumulative Expenditure to 30 June 2005	2005-06 Budget Estimate
		\$m	\$m	\$m
Aerospace				
Armed Reconnaissance Helicopter	AIR 87 Ph2	1,964	844	440
F/A-18 Hornet Upgrade	AIR 5376 Ph2	1,478	769	183
Additional Trooplift Helicopter	AIR 9000 Ph2	1,010	163	138
ADF Air Refuelling Capability	AIR 5402	1,833	209	110
Anzac Ship Helicopter ⁽²⁾	SEA 1411 Ph1	1,001	915	47
Strategic Airlift Capability	AIR 5216 Ph1	1,044	984	32
Airborne Early Warning and Control				
Airborne Early Warning and Control	AIR 5077 Ph3	3,456	2,051	296
Maritime				
Armidale-class Patrol Boat	SEA 1444 Ph1	477	101	186
Anzac Ship Project	SEA 1348 Ph2	5,370	5,072	164
FFG Upgrade Implementation	SEA 1390 Ph2	1,464	982	116
Collins Replacement Combat System	SEA 1439 Ph4A	443	219	95
SM-1 Missile Replacement	SEA 1390 Ph4B	558	11	80
New Heavyweight Torpedo	SEA 1429 Ph2	414	117	54
Anti-Ship Missile Defence	SEA 1448 Ph2A	516	20	47
Collins-class Reliability and Sustainability Improvements	SEA 1439 Ph3	371	151	39
Electronic and Weapons Systems				
Electronic Warfare Self Protection for Selected ADF Aircraft	AIR 5416 Ph2	290	23	107
New Air Defence Command and Control Systems for 2CRU/3CRU ⁽³⁾	AIR 5333	248	75	51
Jindalee Operational Radar Network	JP 2025 Ph3/4	1,244	1,132	46
Explosive Ordnance Reserve Stocks	JP 2085 Ph1B	204	51	41
Lightweight Torpedo Replacement	JP 2070 Ph3	269	21	39
Lightweight Torpedo Replacement	JP 2070 Ph2	319	128	37
Milsatcom Ground Infrastructure	JP 2008 Ph3E	148	80	37
High Frequency Modernisation – Remainder of the network	JP 2043 Ph3A	608	307	34
Land				
Bushranger Infantry Mobility Vehicles	LAND 116 Ph3	352	130	86
Tank Replacement Project	LAND 907 Ph1	534	81	81
Upgrade of M113 Armoured Vehicles	LAND 106	589	184	78
Australian Light Armoured Vehicles	LAND 112 Ph3	672	536	42
General Service Field Vehicles - Overlander	LAND 121 Ph2	87	23	30
Amphibious Vessels				
Maritime Operations Support Capability	SEA 1654 Ph2A	145	60	62
New Air Combat Capability				
	AIR 6000 JSF			
New Air Combat Capability ⁽⁴⁾	SDD	211	93	55
TOTAL TOP 30 PROJECTS		27,319	15,532	2,853

Notes

1. All approved expenditure and budget estimates amounts are at a *Portfolio Budget Statement 2005-06* indexation and exchange basis price and exchange basis.
2. Project approval, expenditure and estimate figures are the net cost of the ten-ship program after deducting New Zealand payment.
3. Project title previously reported as '2CRU/3CRU Control and Reporting Units'.
4. Project title previously reported as 'Joint Strike Fighter' project.

AIR 87 Ph2 Armed Reconnaissance Helicopter

Prime contractor: Australian Aerospace

This project will provide Defence with 22 armed reconnaissance helicopters, a training system including simulation devices for aircrew and maintenance personnel, a software support facility and a ground mission management system. The Government signed a 15-year support contract that commences when the first helicopters start flying in Australia. The in-service date was achieved when two of the armed reconnaissance helicopters were delivered on 15 December 2004.

The two remaining armed reconnaissance helicopters constructed in France will be delivered in June 2005, and the first helicopters from the Australian production line at the Australian Aerospace facility in Brisbane in July 2005. Training of Australian military and contractor flying instructors is continuing in France and will commence in Australia in June 2005. Ground crew and maintenance technician training has commenced in Australia.

Final delivery of the armed reconnaissance helicopters and achievement of full operational capability will occur by December 2008.

The budget estimate reflects a mixture of aircraft and non-aircraft deliverables.

This project contributes to Army capability.

AIR 5376 Ph2 F/A-18 Hornet Upgrade

Prime contractor: Boeing (United States)

This project seeks to upgrade the F/A-18 Hornet fleet to incorporate enhancements that will improve situational awareness, radar and electronic warfare capabilities to allow the aircraft to perform its air defence tasks more effectively. The improved situational awareness aspects address colour cockpit displays, a digital moving map, a helmet-mounted cueing system for the advanced short-range air-to-air missile and improved datalinks.

The project schedule for 2005-06 includes the planned source selection of the electronic warfare jammer and contract negotiation for the provision of the radar warning receiver. The supplementary counter-measures dispensing system has been selected and procurement and integration contracts will be signed in 2005-06.

In early 2005, the project commenced flight testing of the pilot situational awareness modifications including the cockpit display. Work on the cockpit display design and development will continue in 2005-06, with design acceptance certification planned for late 2005.

In February 2005, the ALR-2002B was confirmed as the selected option for the F/A-18 Hornet radar warning receiver dependent on contract negotiation with principal sub-contractor BAE Systems.

This project contributes to Air Force capability.

AIR 9000 Ph2 Additional Trooplift Helicopter

Prime contractor: Australian Aerospace

On 31 August 2004, the Prime Minister and the Minister for Defence announced that the MRH-90 had been selected as the preferred platform for the ADF's additional troop lift squadron under phase 2 of the AIR 9000 program.

AIR 9000 phase 2 will acquire 12 helicopters, the associated equipment and establish the in-service support contract.

The new helicopters will be located in Townsville. The first delivery is expected in late 2007, with all 12 aircraft delivered by mid-2009.

Contract negotiations with Australian Aerospace are expected to be completed before the end of 2004-05.

In 2005-06, production will continue on the MRH-90 helicopters at the Eurocopter facilities in France. During 2005-06, the Aircraft System Design Review and the Aircraft Detailed Design Review will be conducted. Preliminary design reviews for all mission systems will be completed in this period.

This project contributes to Army capability.

AIR 5402 ADF Air Refuelling Capability

Prime contractor: EADS CASA (acquisition) and Qantas Airways Ltd (through-life support)

This projects seeks to acquire five new generation Airbus A330 multi-role tanker transport aircraft, together with through-life support services including engineering, maintenance, spares management, upkeep of technical data, software management and training support.

The acquisition contract was signed with EADS CASA on 20 December 2004. Negotiation of the through-life support contract with Qantas will be finalised in 2005. The in-service date (comprising two aircraft, completion of qualification testing and issue of the military airworthiness certificate) is planned for late 2009.

Expenditure during 2005-06 is for milestones for completion of design activities (preliminary design review and critical design review) and for earned value payments associated with production of the 'green' A330 aircraft.

This project contributes to Air Force capability.

SEA 1411 Ph1 Anzac Ship Helicopter

Prime contractor: Kaman Aerospace International Corporation

This project will acquire 11 maritime combat helicopters for the Anzac-class frigates, providing an enhanced capability for surface surveillance, anti-surface

warfare, contact investigation and maritime utility tasks. The acquisition includes a full mission flight simulator and software support centre.

Nine helicopters have been delivered. One more aircraft will be delivered in mid-2005 in the interim training helicopter configuration. The remaining helicopter is being used to test the full capability software in the United States and will be delivered in late 2005. Integration of the full capability software is progressing and is now scheduled to be completed by mid-2005. Kaman is expected to be able to offer the first full capability helicopter for acceptance in the second half of 2005.

The estimate reflects reprogramming due to slippage of the first full capability helicopter from late in 2004-05 to early in 2005-06.

This project contributes to Navy capability.

AIR 5216 Ph1 Strategic Airlift Capability

Prime contractor: Lockheed Martin Aeronautical Systems

Twelve C-130J aircraft have been acquired to replace the C-130E aircraft. The aircraft are in-service and the major elements of the project have been completed. Interim in-service support contracts are in place, while procurement of remaining spares, documentation and equipment for deeper maintenance continues. Long-term support contracts are being developed and will be established during 2006.

Activities in progress in 2005-06 include investment in a full-scale fatigue test, the installation of an operational loads management system, and incorporation of the software build known as Block 5.4. Block 5.4 is designed to correct a number the deficiencies, errors, latent defects and warranty problems in the software.

This project contributes to Air Force capability.

AIR 5077 Ph3 Airborne Early Warning and Control

Prime Contractor: Boeing (United States)

This project will provide Defence with an airborne early warning and control capability, with the provision of six aircraft and associated supplies and support. The project remains on schedule and on budget, with a planned in-service date of 2007.

The first aircraft successfully completed its flight certification program in March 2005. The second aircraft is on schedule to begin mission system testing in June 2005. Design test and evaluation is planned for completion in March 2006.

Build 7 of the mission computing software is planned to enter test in June 2005 and Build 8, the final build, in August 2005. Preparations for transition of the aircraft modification line to Australia are well advanced with the modification of

the third aircraft planned to commence at RAAF Base Amberley in December 2005. Construction of the maintenance hangar is planned for completion in January 2006 and associated aircraft parking areas in June 2006 as part of Stage 1 of the RAAF Williamstown Redevelopment. Delivery of the Operational Flight Trainer and Operational Mission Simulator is planned for May 2006 under the prime contract.

This project contributes to Air Force capability.

SEA 1444 Ph1 Armidale-class Patrol Boat

Prime contractor: Defence Maritime Services

This project will replace the capability provided by the Fremantle-class patrol boats. The prime contract for acquisition and 15-years support for each vessel was signed in 2003. The prime contractor will supply a fleet of 12 vessels to provide 3,000 days operational availability for Coastwatch and ADF support operations, plus a surge capacity of up to 600 additional available days per year.

Even though the schedule is tight, Defence Maritime Services and its shipbuilder, Austal Ships, have met schedule milestones to date. Design work is complete and the production is on track to deliver the first patrol boat in May 2005. Boats 2 and 3 are expected to be delivered in last quarter of 2005 and boats 4, 5, 6 and 7 are expected to be delivered in the first half of 2006. A minor increase in the estimated expenditure reflects ancillary contracts signed since the *Portfolio Budget Statements 2004-05*.

The additional two patrol boats planned for the North West Shelf are expected to be built at the end of the current build cycle for delivery commencing in 2007.

Public Works Committee approval has been obtained to commence upgrades to the Darwin Naval Base wharf extension to accommodate the larger Armidale-class patrol boats. The first stage of this work commences in 2005. The remainder of the facilities' build, subject to approval, will commence in 2006.

The re-location of project staff from Canberra to Darwin to allow collocation with the Patrol Boat Force Element Group has commenced, with the move planned for completion by the end of 2005.

This project contributes to Navy capability.

SEA 1348 Ph2 Anzac Ship Project

Prime contractor: Tenix

This project involves the delivery of ten ships, associated shore facilities and logistic support. Two of the ten ships (02 and 04) were for the Royal New Zealand Navy. Eight ships have been delivered and are in-service with the Royal Australian Navy and the Royal New Zealand Navy.

Ship 09 (*Toowoomba*) is planned for delivery in the third quarter of 2005 and Ship 10 (*Perth*) was launched in March 2004 and is planned for delivery in mid-2006.

This project contributes to Navy capability.

SEA 1390 Ph2 FFG Upgrade Implementation

Prime contractor: ADI Limited

The project seeks to regain a comparative regional capability of the four Adelaide-class guided missile frigates (FFGs), and ensure that they remain effective and supportable through to their end of life in 2013-2021. ADI are conducting the upgrade production and installation at its Garden Island facility, Sydney, New South Wales.

Commonwealth handover of the first follow-on FFG for upgrade is linked to successful completion of contractor sea trials of the lead ship (HMAS *Sydney*). Contractor delivery of the lead ship is planned for the third quarter of 2005, but there are concerns by the DMO that there will be delays to late 2005. The second ship is planned to enter upgrade after provisional acceptance of the lead ship.

The commencement and completion dates of the other two remaining ships are subject to negotiation with the Navy and ADI, and take into account the Navy's operational requirements and ADI's capacity to meet project completion by 2008. The exact timing for the reduced scope of four ships is still to be negotiated with ADI.

This project contributes to Navy capability.

SEA 1439 Ph4A Collins Replacement Combat System

Prime contractors: United States Department of Defense under a foreign military sales case and an armaments cooperative project. Australian contractors Raytheon Australia, Thales, Sonartech Atlas and ASC Pty Ltd

This project will provide a replacement combat system for the Collins-class submarines. This will contribute to the development of the submarine's full capability, in conjunction with other project phases that will implement a program of modifications and enhancements to the submarine platform.

Detailed platform design and installation planning is due for completion in mid-2005. Contracts to install the combat system in each of the submarines will be established progressively. Installation of the first replacement combat system in a submarine is planned for 2006, with all submarines to be upgraded by the end of the decade.

Multi-function system hardware including servers, displays, harnesses and smaller components from Australian-based suppliers are being delivered progressively. The United States components will be delivered in October 2005.

Work on the shore integration facility in Western Australia commenced in mid-2004 and will be completed ready for system integration in late 2005. Integration is planned for completion in April 2006.

This project contributes to Navy capability.

SEA 1390 Ph4B Standard Missile-1 (SM-1) Replacement

Prime contractor: United States Department of Defense under a foreign military sales case

SEA 1390 Phase 4B was approved by the Government on 12 July 2004 and provides for the integration of the SM-2 missile into four FFGs, delivery of missiles with mid-course guidance capability, and acquisition of initial ship outfit and inventory stock missiles. The preliminary design review will be conducted in October 2005, and the critical design review is planned for April 2006. The initial in-service date for the lead ship is 2009.

The acquisition of the SM-2 capability will be achieved under United States Foreign Military Sales arrangements and a mix of United States commercial and Foreign Military Sales contracts for the delivery of equipment hardware, software development, integration, equipment installation and system testing. Work is progressing to establish these arrangements.

This project contributes to Navy capability.

SEA 1429 Ph2 New Heavyweight Torpedo

Prime contractor: United States Department of Defense under a memorandum of understanding, with work being performed by Raytheon United States and the Naval Undersea Warfare Center of the United States Navy

This project will acquire a replacement anti-surface and anti-submarine heavyweight torpedo for the Collins-class submarines. The new heavyweight torpedo will replace the United States Navy Mk 48 Mod 4 heavyweight torpedo currently in-service with the Royal Australian Navy. The Government approved the heavyweight torpedo project and Defence signed the memorandum of understanding with the United States Navy in March 2003.

The project scope includes the acquisition of the weapons, associated logistic support, weapon system interface equipment, operational support, analysis and test equipment, and transition into service.

Submarine integration design work being performed by the Australian Submarine Corporation under the Through-Life Support Agreement is expected to be completed by March 2006. Initial operational release is planned for late 2006.

This project contributes to Navy capability.

SEA 1448 Ph2A Anti-Ship Missile Defence

Alliance agreement: Anzac Ship Alliance with Tenix and Saab

This project will provide the Anzac-class frigates with a reasonable level of self-defence against modern anti-ship missiles. Phase 2 of the project has been split into two sub-phases.

The first phase (2A) will implement the high priority aspects of the upgrade and will be undertaken in parallel with consideration of the second phase options. Phase 2A will also upgrade the ships' command and control system, install an infra-red search and track system (which will provide improved detection and indication of low-level aircraft and anti-ship missiles when close to land) and complete the core platform design changes and studies for the overall system.

The introduction of the Very Short-Range Air Defence capability has been deferred to the second phase (2B). Phase 2B will complete the anti-ship missile defence capability by the introduction of a second channel of fire to enable more than one weapon to be controlled in flight. Options for this phase may include the introduction of phased array radar technologies, depending on the outcomes of the feasibility studies and trials completed during 2004. Defence recommendations regarding this phase will be submitted to the Government for consideration in mid-2005.

The upgrade for the Anzac-class ships is being contracted through Defence's Anzac-class Ship Alliance with Tenix and Saab Systems. Tenix and Saab will lead and carry out most of the design and systems integration work in their Melbourne and Adelaide facilities.

The first of the upgraded Anzac-class frigates will be delivered to the Navy in 2008. The remaining ships will then be upgraded over the period 2009 to 2012. All installation work will be carried out by Australian industry in the Navy's East and West Coast fleet support facilities during periods of scheduled maintenance.

This project contributes to Navy capability.

SEA 1439 Ph3 Collins-class Reliability and Sustainability Improvements

Prime contractor: ASC Pty Ltd

This project will provide reliability and sustainability improvements to the Collins-class submarines through the ongoing implementation of the McIntosh/Prescott report recommendations. It also addresses shortcomings in the submarine support infrastructure.

A number of modifications have been incorporated into the last three submarines built and the first submarine during its full cycle docking, with a second submarine to be completed later in 2005. Further modifications are being incorporated into all submarines during planned major maintenance periods.

This project contributes to Navy capability.

AIR 5416 Ph2 Electronic Warfare Self Protection for Selected ADF Aircraft

Prime contractor: Phase 2A – BAE Systems

Phase 2B – Tenix

This project will acquire electronic warfare self-protection and ballistic protection measures for selected ADF aircraft. The project is being implemented under three distinct sub-phases; Black Hawk and Chinook helicopters, the C-130H Hercules fleet, and the Sea King helicopters.

Phase 2A will acquire and integrate electronic warfare self-protection onto Black Hawk and Chinook helicopters. The prime contract was awarded to BAE Systems of Adelaide on 4 February 2005. One of the main activities under the prime contract will be the development of the integration design from the initial design activity stage. The anticipated in-service dates for the first modified aircraft for each type are late 2008 for the Black Hawk and early 2009 for the Chinook aircraft.

Phase 2B will upgrade the electronic warfare self-protection capability on all C-130H Hercules aircraft. The prime contract was awarded to Tenix in December 2004 and the completion of the engineering design activity is expected in November 2005 to allow induction of the first aircraft in early 2006. The anticipated in-service date for the C-130H aircraft is mid-2007, with all 12 aircraft completed by April 2008.

The project contributes to Army and Air Force capabilities.

AIR 5333 New Air Defence Command and Control Systems for 2CRU/3CRU (previously reported as 2CRU/3CRU Control and Reporting Units)

Prime contractor: Boeing Australia Ltd

This project will replace the interim air defence command and control systems at the RAAF's Nos. 2 and 3 Control and Reporting Units located at RAAF Tindal, Northern Territory and RAAF Williamtown, New South Wales with an integrated, real-time, ADF Air Defence System and an associated communications network. The first command and control system is expected to be installed and operational at RAAF Tindal by mid-2007.

Major outcomes expected in 2005-06 are the completion of the project's preliminary design review early in the financial year and commencement of the critical design review later in the financial year

The project contributes to Air Force capability.

JP 2025 Ph3/4 Jindalee Operational Radar Network

Prime contractor: RLM Management

The Jindalee Operational Radar Network consists of the network control centre at RAAF Edinburgh near Adelaide, South Australia and two new over-the-horizon radars: one near Longreach, Queensland and the other near Laverton, Western Australia. The previously existing Jindalee radar system near Alice Springs, Northern Territory has also been incorporated to form a three-radar network that is centrally controlled from RAAF Edinburgh. With the successful delivery of the Jindalee Operational Radar Network in 2003 having resulted in a major enhancement of national surveillance capability, the project's acquisition component is essentially completed.

The remaining project work focuses on maintenance and support activities and engineering services that provide both facility sustainment and higher-end technical upkeep of the network's assets.

The project contributes to Air Force capability.

JP 2085 Ph1B Explosive Ordnance Reserve Stocks

Contractors: Multiple procurement agreements with Australian and overseas munitions suppliers.

Joint Project 2085 Phase 1B covers progressive acquisition from 2005 to 2007 of a range of explosive ordnance items to increase Defence's reserve stock holdings.

Overall, the project will procure around 120 different items of explosive ordnance covering anti-armour ammunition, medium and field artillery ammunition, mortar ammunition, demolition stores, pyrotechnics, bombs and the Navy's shells.

During 2005-06, contracts are planned to be awarded for additional Harpoon missiles for the Navy and the Air Force, 84mm Carl Gustov ammunition for the Army, and bombs and associated fuses for the Air Force.

This project contributes to Navy, Army and Air Force capabilities.

JP 2070 Ph 2 and Ph3 Lightweight Torpedo Replacement

Alliance agreement: Commonwealth of Australia, EuroTorp and Thales

Phase 2 of this project will introduce the EuroTorp MU90 lightweight torpedo into ADF service to replace the United States Navy Mk 46 lightweight torpedo. The weapon is to be integrated into the Anzac and Adelaide-class guided missile frigates, the Super Seasprite and Seahawk helicopters and the P-3 Orion maritime patrol aircraft. Phase 2 will acquire an initial stock of weapons, integrate the weapon into all platforms, establish a local weapon assembly facility and local in-service support and operator and maintainer training capabilities.

The weapon is being acquired under an alliance agreement between the Commonwealth, EuroTorp and Thales. The initial batch of MU90 torpedoes for test and evaluation is scheduled for delivery in early 2006.

While the full capability in-service date for the MU90 torpedo is 2009, four Anzac-class frigates have already received the necessary modifications to be able to fire both the current weapon and the MU 90. Installation into the other frigates will be completed by December 2007, depending on ship maintenance schedules and fleet activity schedules. The integration contract for the P-3 Orion aircraft is planned to be awarded by early 2006. The integration plan for the Seasprite helicopter remains to be determined.

Contract signature for the procurement of additional weapons under Phase 3 is planned for mid-2005.

This project contributes to Navy and Air Force capabilities.

JP 2008 Ph3E MILSATCOM Ground Infrastructure

Prime contractor: BAE Systems (Australia)

Phase 3E will provide the high-priority satellite communications ground infrastructure for use with the Optus C1 satellite Defence payload.

Acquisition and through-life support contracts for the maritime element were signed with BAE Systems on 28 November 2003. The delivery of the first terminal is due in the third quarter of 2005, with the final terminal installation to occur in the last quarter of 2006.

Defence is the systems integrator for the overall Phase 3E requirements, which includes (in addition to the maritime terminals and land terminals) broadcast software and a primary injection facility. The first delivery of equipment required for the installation of the primary injection facility occurred in April 2005.

The initial delivery of broadcast software from Ebor Computing is progressing to schedule and is due to be delivered in mid-2005. A contract with Ebor Computing for the development and delivery of the mature Theatre Broadcast Software package is planned for signature during the third quarter of 2005.

The land terminal contract remains on track with the production readiness review scheduled for late April 2005 and the first terminal to be delivered in October 2005.

The project contributes to the Command of Operations capability.

JP 2043 Ph3A High Frequency Modernisation – Remainder of the network

Prime contractor: Boeing Australia

This project will replace naval high-frequency radio stations at Canberra, Darwin, Exmouth, Sydney, Cairns and Perth and the Air Force high-frequency

radio stations at Sydney, Townsville, Darwin and Perth. The new network will provide enhanced high-frequency radio communications capabilities and compatible high-frequency equipment in selected ADF mobile platforms.

The project will deliver the new capability in two stages. The first stage, now complete, replaced and rationalised existing facilities. The second stage will provide increased levels of automation, improved capability, enhanced security and survivability, reduced reliance on staff, and will incorporate the new equipment into the mobile platforms.

The second stage will be introduced progressively between 2005 and 2008, with installation into mobile platforms potentially extending to 2010. The preliminary design review for the second stage is scheduled for September 2005.

This project contributes to the Command of Operations capability.

LAND 116 Ph3 Bushranger Infantry Mobility Vehicles

Prime contractor: ADI Limited

Project Bushranger will acquire 299 infantry mobility vehicles from ADI to enhance the mobility of the Army. The infantry mobility family of vehicles will consist of six variants: troop, command, assault pioneer, mortar, direct fire weapon and ambulance. The Air Force Airfield Defence Guards will employ 12 of the troop variants.

The first production vehicle delivered has successfully undergone rigorous testing to ensure the Army's requirements are met.

Key outcomes for 2005-06 will be the production of vehicles to the agreed schedule and the commencement of the introduction into service phase.

This project contributes to Army and Air Force capability.

LAND 907 Ph1 Tank Replacement Project

Prime contractor: United States Foreign Military Sales Program

This project will replace the Leopard tank fleet with a modern, survivable and interoperable tank capability that will be supportable until at least 2020. The project scope includes 59 M1A1 Abrams main battle tanks, seven M88A2 Hercules recovery vehicles, simulators, tank transporters and fuel trucks, support equipment and spares, training ammunition, facilities and initial training.

The new tanks will be operated by the present Leopard units: 1st Armoured Regiment in Darwin, Northern Territory, the School of Armour in Puckapunyal, Victoria and the Army Logistic Training Centre in Bandiana, Victoria.

The project is ahead of schedule to meet the initial in-service date of one squadron by December 2007. Deliveries to support this will commence in

October 2006, with training of the first squadron group scheduled from January 2007.

During 2005-06, the project will see the delivery of spare part special tools and test equipment and continued refinement of vehicle specifications, facility and training requirements.

This project contributes to Army capability.

LAND 106 Upgrade of M113 Armoured Vehicles

Prime contractor: Tenix

This project is upgrading 350 of the Army's fleet of M113 armoured vehicles, which provide transport and fire support for the Army's mechanised infantry forces to improve protection, firepower, mobility and habitability.

The upgrade includes applique armour, a new armoured turret and machine gun, a new engine, drive train and suspension, and the stretching of 271 vehicles.

Engineering development and systems integration of the upgraded vehicles are progressing, but have proven to be more difficult than anticipated. Resolution of recently identified drive train problems is slowing the construction of initial production vehicles for the test and evaluation program and placing pressure on the project schedule. The project is still planning to meet the key date of an initial capability in-service by December 2006, but there is now risk with achievement of this schedule.

Key outcomes expected for 2005-06 will be the finalisation of vehicle design for the initial vehicle variants, completion of vehicle test and evaluation and the commencement of full production.

This project contributes to Army capability.

LAND 112 Ph3 Australian Light Armoured Vehicles

Prime contractor: General Dynamics Land Systems (Canada)

Phase 3 of this project will acquire 144 wheeled light armoured vehicles (ASLAVs), nine crew procedural trainers, up to 59 behind armour commanders' weapon stations, 18 surveillance suites, and the standardisation of the in-service fleet of 113 Phase 2 vehicles to the Phase 3 build-state. These capabilities will be delivered to the 2nd Cavalry Regiment (Darwin, Northern Territory), the 2nd/14th Light Horse Regiment (Brisbane, Queensland), supporting logistic units including the Army Logistic Training Centre (Bandiana, Victoria), and the School of Armour (Puckapunyal, Victoria). All 144 Phase 3 vehicles and 20 of the 113 standardised Phase 2 vehicles have been delivered.

Key outcomes for 2005-06 will be delivery of the remaining standardised Phase 2 vehicles to the 2nd/14th Light Horse Regiment, the behind armour commanders'

weapon stations, the crew procedural trainers, and a prototype of the surveillance suite for the surveillance variant.

This project contributes to Army capability.

LAND 121 PH 2 General Service Field Vehicles - Overlander

Prime contractor: Mack Trucks Australia Pty Ltd; Tieman Industries Pty Ltd; Haulmark Trailers Australia; Crisp-Air Pty Ltd; Comtech Automotive Industries; Royal Wolf Trading Australia Pty Ltd.

LAND 121 Phase 2A addresses capability deficiencies relating to significant occupational health and safety issues within the current General Service B-vehicle fleet. B vehicles include all wheeled, non-armoured, field vehicles and trailers within the Australian Defence Force. LAND 121 Phase 2A includes new bulk liquid fuel transport vehicles, new recovery equipment for the heavy recovery vehicle, addressing the excessive in-cabin noise levels in some fleets and providing improved occupant safety levels in selected vehicles.

Key outcomes for the period 2005-06 will be the:

- completion of progressive delivery to the Army of 64 Heavy Recovery Vehicles upgraded with new recovery equipment, with priority of delivery to training units and then high readiness units;
- acquisition and installation of an in-cabin noise reduction system for the Mack Truck fleet;
- delivery of roll-over protective structures, effective seat and seatbelt systems and personnel/cargo segregation systems for 135 Unimog and 26 Mack Gun Tractors; and
- completion of pre-production activities and design acceptance of a personnel/cargo restraint and segregation system and a roll over protection system into the Land Rover 110 4x4 for the Regional Force Surveillance Vehicle.

This project contributes to Army capability.

SEA 1654 PH2A Maritime Operations Support Capability

Prime Contractor: Tenix Defence Pty Ltd

This project seeks to replace the Navy's existing afloat support capability (HMA Ships *Westralia* and *Success*). Planned withdrawal dates for the ships are 2006 and 2015 respectively. This afloat support capability increases the effectiveness of the Surface Combatant and Amphibious Forces.

The current afloat support capability is provided by HMA Ships *Success* and *Westralia* with annual operating costs of \$48m and \$23m respectively. These ships support the two-ocean basing policy and provide the sustainment

necessary for surface combatant task groups to operate in the expansive waters of the region.

In June 2004, Defence acquired the *Westralia* replacement vessel, the MT *Delos*, from Hyundai. The *Delos* is a new build vessel, delivered direct to the Commonwealth from the original owner (Tsakos Energy Navigation) at the Hyundai facility in South Korea immediately after builder's trials. The purchase price was \$52.2m.

On 15 March 2005, Defence entered into contract with Tenix Defence for the package of modification work required to the *Delos* to make it suitable for acceptance into Naval Service as HMAS *Sirius*. The contracted price is \$63.1m and final acceptance for the SEA 1654 Phase 2A modification contract is September 2006.

In addition, contracts have been entered into for the supply of a Replenishment-at-Sea Rig at a cost of \$4.9m and for the provision of contracted support services. The rig is expected to be delivered during 2005-06.

The projected expenditure for 2005-06 is \$61.3m. Of the total projected expenditure, approximately \$50m is for the prime contract with Tenix for the *Delos* modifications.

This project contributes to Navy capability.

AIR 6000 SDD New Air Combat Capability

Memorandum of Understanding: United States Government

This project aims to introduce a new air combat capability with the air dominance and strike functions currently provided by the F/A-18 Hornet and F-111 aircraft fleets. While a formal decision on the replacement aircraft has not yet been made, the Government stated its expectation in June 2002 that this capability would be provided by the Lockheed Martin F-35 Joint Strike Fighter. The Joint Strike Fighter is being developed by an international collaborative program, led by the United States, and is in the system development and demonstration phase. AIR 6000 System Development and Demonstration New Air Combat Capability funds Australia's contribution to the program.

Under a separate existing phase, the project is undertaking collection and analysis of system development and demonstration information and the associated studies, risk mitigation and planning activities necessary to support the Government's first pass procurement decision scheduled for 2006. This phase also supports Australian industry participation in the Joint Strike Fighter program and development of the international agreement that will provide the means for acquisition, support and ongoing development of the aircraft. Formal negotiations for this agreement are scheduled to commence in May 2005, with a planned date for signature of the Memorandum of Understanding in December 2006.

The subsequent acquisition stage of the project will be conducted in a number of phases and will acquire the aircraft and associated systems and transition the capability into service.

This project contributes to Air Force capability.

Minor Capital Investment Programs

Minor Capital projects deliver capability but are funded from allocations outside the Defence Capability Plan. There are five Minor Capital Investment Programs, which allocate funds to minor projects to meet emerging enhancement, replacement or new requirements of relatively low values. There are currently about 200 such projects with an average value of less than \$5m.

Planned resource use for Minor Capital Investment Program is \$130.3m in 2005-06.

Performance Target for Output 1.2 – Capability Sustainment

Sustainment involves the management and provision of services and products needed to meet the capability, preparedness and performance requirements of a materiel system. Typical services include maintenance, engineering, supply, configuration management and disposal action. Common products include spares, technical data, support and test equipment, training equipment and materials.

The DMO's sustainment services to Defence, and the price the DMO receives for these services, will be formalised in Materiel Sustainment Agreements between the DMO and Defence Capability Managers. Sustainment agreements are based around the DMO sustainment products, which have been defined by each of the Systems Divisions to reflect the output of their sustainment activity.

Products have been designed around key platforms, systems or fleets supported by the DMO. For example, key products include sustainment of F/A-18 Hornet aircraft, provision of explosive ordnance, sustainment of Collins-class submarines, sustainment of navigation warfare systems, and supply of ADF clothing.

Maritime Systems

The sustainment of maritime materiel is managed by ten System Program Offices located proximate to the ship classes supported and generally aligned with the Navy Defence sub-outputs.

All depot-level maintenance is contracted out. In-service support management is conducted by a variety of arrangements varying from Integrated Logistics Support and maintenance through a single prime contractor to the system program office acting as the prime with separate contract and in-house support. The Logistic Support Agency – Navy provides the majority of inventory and

repairable item management for most classes (except the hydrographic ships, the Armidale-class Patrol Boats and the Minehunter Coastal vessels).

The major challenges for sustainment during 2005-06 include:

- management of the obsolescence of equipment and repair parts for most classes;
- stabilisation of the Collins-class submarine through-life support contract, especially the certification extension and full-cycle docking program;
- additional support for the increasing number of Anzac-class frigates; and
- preparations for laying up two Huon-class coastal minehunter vessels at extended readiness notice with the ability to bring back into service should the need rise.

During 2005-06, new integrated materiel support contracts are expected to be negotiated and in place for the Adelaide-class guided missile frigates (FFGs) and Anzac-class frigates; and the first six Armidale-class patrol boats will be in-service, operated and supported from Darwin by Defence Maritime Services, the prime contractor.

Electronic and Weapon Systems

The sustainment of electronic and weapons systems is managed in 19 System Program and System Support Offices. These cover command and control systems, communications, airspace surveillance and control systems and their supporting radars, electronic warfare systems, guided weapons and explosive ordnance of all types.

Major challenges for sustainment during 2005-06 include:

- consolidation of heavy grade repair, engineering and supply support of selected single channel radio systems equipment. This initiative is to rationalise the existing in-service support of the ADF's inventory of combat net radios and ancillaries, and will streamline and consolidate three current and disparate arrangements into one support contract;
- consolidation of sustainment of tactical electronic warfare materiel, for all three Services - in anticipation of systems being introduced through Project BUNYIP (DEF 224 Force-level Electronic Warfare);
- support to command support systems will be further merged and centralised to gain additional efficiencies. The effectiveness of this strategy has already been realised in significantly enhanced direct support to operations; and
- in-service support of the Nulka electronic missile decoy system is planned to be established to support the system for an initial three-year period.

In 2005-06, a number of new guided weapons are to be introduced into service, including the Javelin anti-armour missiles, the heavyweight torpedo and Hellfire missiles. Other new types of ammunition will start to be procured in anticipation of the delivery of the Abrams M1A1 main battle tank and rockets for the Armed Reconnaissance Helicopter. The Sparrow and Seasparrow missiles will be withdrawn from service during 2005-06.

In 2005-06, the Australian Defence Air Traffic System and Tactical Air Defence Radar System will be introduced into service, and the AN/TPS-43 Surveillance Radar will be retired from service. A significant upgrade to the Air Force's ground-based Link 11 tactical datalink system will be fielded along with interim enhancements to the Air Force's mobile air defence control centre capability.

Two major communications facilities will close with the introduction of the modernised high frequency communication system. The Canberra communication site, and the High Frequency component situated at Harold E. Holt at Exmouth, Western Australia, will be decommissioned commencing in July 2005.

Aerospace Systems

Sustainment of aerospace systems is managed in seven System Program Offices. This support covers fixed and rotary wing assets as well as a range of aircraft simulators to support flying and maintenance training.

Major challenges for sustainment during 2005-06 include:

- negotiation and implementation of contracts with performance-based logistics contracts for the C-130 Hercules and P-3 Orion aircraft engines, elements of sustainment support of the P-3 Orion aircraft, and the next five years of through-life support arrangements for the A-27 Lead in Fighter (Hawk aircraft); and
- logistics support for F/A-18 Hornet, C-130J and C-130H Hercules, P-3 Orion, PC-9/A Pilatus, Seahawk, Sea King, Super Seasprite and Black Hawk weapon systems.

Implementation of the support philosophies outlined in the Australian Defence Aerospace Sector Strategic Plan will continue to be a focus of activity. The plan, endorsed by the Government in June 2004, focuses on delivering an outcome-based and incentivised contracting framework for enhanced sustainment support of Defence aviation capabilities.

Land Systems

The sustainment of land systems is managed by eight Systems Program Offices. Land materiel product lines span a diverse range of equipment, including: armoured vehicles; B vehicles fleets; weapon and complex electronic systems; deployable medical and dental equipment; tentage and stores; uniforms and consumable stores such as combat rations.

The major land sustainment focus will continue to be the provision of high-quality support to ADF force elements deployed in operational theatres, alongside ongoing work on issues such as obsolescence management.

Major challenges for sustainment of land systems in 2005-06 include:

- preparation for the transition of support from existing fleets to new tanks and upgraded M113 armoured vehicles;
- development of integrated materiel support contracts for new and upgraded armoured vehicle fleets that will enter service over the next few years;
- management of equipment and spares obsolescence for older armoured vehicle fleets;
- contract refurbishment of special forces long-range patrol vehicles and surveillance reconnaissance vehicles;
- contract repair of the Northern Territory-based Unimog fleet;
- introduction of improved ballistic protection for in-service combat body armour; and
- procurement of additional night vision goggle monoculars.

The DMO's sustainment of land systems is reliant on some heavy maintenance of land equipment supply chain warehousing and distribution operations, delivered through Joint Logistic Command.

Chief Operating Officer Division

The sustainment of logistics information systems includes support for the Standard Distribution and Supply System (SDSS), the Computer Aided Maintenance Management system and a number of smaller logistics information systems.

The major challenge for sustainment of logistics information systems in 2005-06 will be the continuing development and upgrade of the SDSS system to support enhanced tracking and management of ADF inventory items across the country.

Planned resource use for Output 1.2 is \$3,229.5m in 2005-06.

Performance Target for Output 1.3 – Policy Advice and Management Services

Performance targets for Output 1.3 are the quality and timely provision of:

- contracting and procurement policy advice for Defence and the DMO, and quality contracting advice to the rest of Defence;
- industry policy and advice to both the Defence Portfolio and the Government, and

Chapter Three

- corporate governance and reporting to meet the Government's requirements.

Planned resource use for Output 1.3 is \$46.6m in 2005-06.