Australian Government
Department of Defence

DEFENCE CAPABILITY PLAN | 2006 - 2016







Public Version

Defence Capability Plan
2006-2016

Public Version

Foreword

The Hon.
Dr Brendan Nelson MP
Minister for Defence

Australian industry plays a crucial role in the acquisition and through-life support of new Defence capabilities. Future capability and operations will rely on Defence having access to the required skills, products and infrastructure provided by industry. As such, it is important that Defence keep industry abreast of its requirements over the coming decade. This will allow Australian industry to align its planning and development to meet Defence's needs into the future by positioning itself to provide value for money solutions. The *2006-16 Defence Capability Plan: Public Version* (DCP 2006-16) reflects the Government's commitment to working with industry to achieve this outcome, building upon a range of initiatives aimed at:

- improving Defence and industry consultative arrangements;
- greater consideration of industry capability issues during the capability definition process;
- changing Defence-industry contracting practices with a stronger focus on outcomes, skills investment and supply chain management; and
- developing strategies focussing on critical industry capabilities and Defence's ability to manage supply and demand in support of these capabilities.

This DCP update does not contain wholesale changes to Defence's future acquisition planning. Rather, it consolidates the projects outlined in the *2004-2014 Defence Capability Plan: Public Version*, updates information on the existing useful life of current defence equipment, and includes a number of additions that take into account changes to the strategic environment outlined in the recent *Australia's National Security: A Defence Update 2005* and the "rolling-on" of the Plan to encompass two more planning years out to FY 2015/16. This DCP contains over $51 billion of costed projects, including $31 billion in the decade. This takes the total value of projects approved and planned since the 2000 Defence White Paper to over $79 billion. This continues the Government's commitment to increased DCP funding, commenced in the White Paper.

The information contained within the DCP 2006-16, although indicative, aims to provide industry with sufficient guidance to enable broad business planning. Like previous versions, DCP 2006-16 can be used as a reference tool for industry to:

- obtain early information and guidance on Defence's long-term capability plans;
- better understand Defence's capability requirements;
- provide meaningful contributions to Defence's capability definition processes; and
- identify potential opportunities for Australian industry participation in Defence acquisition. Specific capabilities and corresponding activities have been identified as they relate to each project. This is aimed at focussing Defence and industry efforts on specific industry capability areas for investment to meet the ADF's capability and support requirements.

I commend this document to Australian defence industry.

Dr Brendan Nelson
Minister for Defence

Contents

The *Defence Capability Plan: Public Version 2006-2016* (DCP 2006-16) provides a brief account of major capital equipment proposals that are currently planned to be approved in the period 2006 to 2016.

Details relating to a small number of classified and sensitive proposals have been withheld. These proposals represent less than two percent of the total forecast expenditure.

Proposals generally consist of a number of self-contained phases. Each will be reviewed and approved separately by Government. Planning for the later phases of some proposals is still too immature to provide specific details on each phase.

The Government is intent on ensuring the investment in future capability is maintained at appropriate levels so that ADF capability is improved over time. To aid in this, funding for the DCP is increased annually to take account of the effects of general inflation and is adjusted to reflect movements in foreign currency exchange rates. The Government has committed to continuing the 3% Defence White Paper 2000 growth in funding for the DCP beyond FY 2010/11 to ensure that Defence can continue to meet the capability goals set out in the White Paper into the future. The graph below shows the cumulative funds available to the DCP and for total major capital equipment investment over the next decade to FY 2015/16, compared to the cumulative funds available in the previous DCP 2004-14 decade.

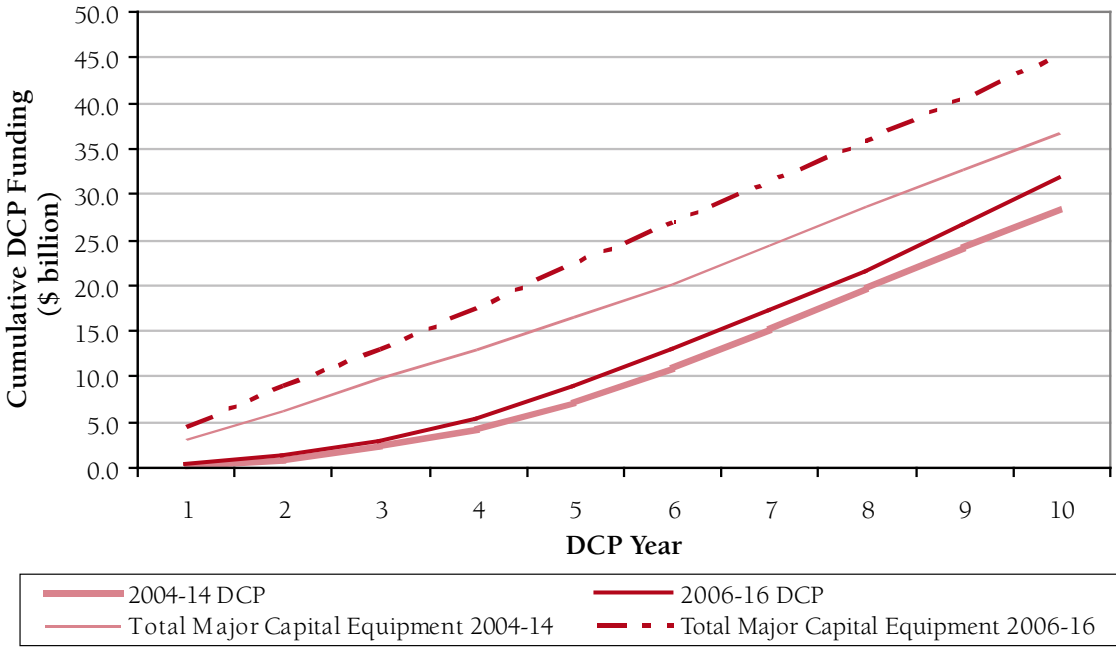

Figure 1: Cumulative DCP Funding over 10-year DCP Planning Horizon

Potential industry partners should note that proposals can undergo substantial changes over time. While the Government's 2000 Defence White Paper capability goals that provide a basis for the DCP remain valid, the detailed project-level plan set out in the DCP is not immutable, and was never intended to be. The DCP is subject to periodic review. Changing strategic circumstances, new technologies and changed priorities will influence the specific proposals contained in the Plan as well as the overall composition of the Plan. It is recognised that changes will occur in coming years. Projects may be accelerated, deferred, enlarged or diminished as circumstances change. Therefore each updated DCP can be expected to contain some changes.

Projects enter the DCP up to ten years ahead of approval. At that stage the broad outcome sought is known, but often the specific means by which it is to be achieved is less clear. The cost provision made at entry is indicative only, often based on examples drawn from current technology. Projects are

developed and refined over time. In that process a range of options are developed and explored, new approaches may become feasible, and scope and costs are refined. Sometimes better ways of achieving the capability emerge or the priority may change.

Accordingly, details provided about the proposals in the DCP should be regarded as indicative only, and industry should consult closely with Defence before acting on the information. Contact points for individual proposals have been provided.

Since FY 2004/05 Defence has been instituting the new two-pass project approval process, as recommended in the *Defence Procurement Review 2003*. Under this process, the Government at first pass reviews the capability need or gap and the broad range of options that might address the gap. At that stage the Government provides approval for Defence to investigate more fully a smaller set of options and for further development and cost refinement, generally through the conduct of a Request for Tender. It should be noted that at this point Government has not committed to proceed with the project or with any specific capability option. Considerable additional development work will continue after this decision, leading to a full second pass approval decision (at the Year-of-Decision) to progress with the project with a defined scope and cost. Following Government's implementation of the Kinnaird reforms, projects are approved when Defence has matured (de-risked) the project sufficiently. The allocation of full acquisition funding occurs following the second pass approval.

The first pass approval will generally occur one to two years before Year-of-Decision.

Contact with industry will generally commence before first pass as proposal sponsors and managers undertake pre-approval study activity and prepare the necessary departmental documentation. More formal industry solicitation would continue during the period between first pass approval and the Year-of-Decision (YOD), via Request for Proposal (RFP) and/or Request for Tender (RFT), allowing projects to move quickly to contract negotiation post approval.

Early contact with industry in the capability definition stages is facilitated through the various Environmental Working Groups established under the Capability Development Advisory Forum. The Capability Staff contacts provided in this DCP can provide further information on the timing and nature of industry involvement.

Defence procurement is underpinned by the principle of value for money. Within this framework, Australian industry is expected to have a key role in the majority of proposals during both the acquisition and through-life support stages of a proposal's life cycle, in accordance with Australia's military self-reliance objectives.

In order to better inform industry on potential Australian industry opportunities arising from the DCP 2006-16, each proposal contains a new section titled Australian Industry Opportunities. This section outlines potential industrial capabilities and activities that may be required from Australian industry in the acquisition and support of the proposed military capability. To the extent feasible, there is consistency across the proposals with regard to the identification of industrial capabilities and activities. This section will continue to be developed in future versions of the DCP, to allow industry to utilise this document to assist in planning the development and sustainment of skills and capabilities, and the direction of research and development. This approach is in line with Government policy to provide clear identification of industry requirements early in the capability development process.

DCP 2006-16 contains equipment acquisition proposals planned to be approved in the next 10 years (and a number FY 2005/06 proposals not yet approved) covering the range of Defence capability, including Land Forces, Air Combat, Maritime Forces (both surface and submarines), Strike, and Network Centric Warfare. It does not include details on approved projects. Information on approved capital investment proposals can be found in the 'Projects' section of the Defence Materiel Organisation website at www.defence.gov.au/dmo.

The DCP 2006-16 contains project specific information in the following subsets:

- **Phase Scope** – describes what is to be acquired under a specific phase of the project;
- **Background** – details how each specific project phase relates to the overall capability requirement;
- **Australian Industry Opportunities** – identifies potential opportunities for Australian industry to be involved in the acquisition and through-life support stages of the proposal;
- **Planned Schedule Highlights** – provides indicative Year-of-Decision and In-service Delivery information. (Year-of-Decision is the financial year when the second pass approval is planned to occur as discussed in the previous section. In-service Delivery is defined as the calendar year when the first elements of the new capability are planned to be delivered);
- **Estimated Phase Expenditure** – provides indicative capital expenditure bands as an indicator of the scale of the proposal;
- **Other Unapproved Phases** – if applicable; and
- **Points of Contact** – for both the proposal sponsor (usually Defence's Capability Systems Division or the Chief Information Officer Group for a small number of proposals) and the capability acquirer (Defence Materiel Organisation).

The proposals are listed in alphanumeric order (i.e. AIR, DEF, JP, LAND and SEA proposals in number order). Indexes are also provided. These categorise proposals by estimated expenditure band and indicative Year-of-Decision.

Australian Industry Opportunities reflect potential opportunities for Australian industry to participate in the project and, where appropriate, provide in-service support. Australian Government policy is to seek greater defence self reliance. Australia does not have an offsets policy. Accordingly, Defence requires Australian industry to provide capabilities that will support the ADF. To this end, Defence seeks to maximise Australian industry participation in the acquisition and sustainment of ADF capability to achieve the required industry capability outcomes, where this represents value for money. Within this section the information is sometimes presented in a series of matrices that outline areas of industrial capability where it is anticipated that Australian industry may have opportunities to participate, together with corresponding activities against each industrial capability. It is intended that this information will continue to be refined for each project as it progresses through the capability development process, which is why a number of projects with Years-of-Decision towards the end of the DCP decade may not yet have identified areas for potential Australian industrial participation.

Planned Schedule Highlights are indicative only. The timing of some of the projects may be adjusted for a variety of reasons including a change in priorities, modified development timescales, or a change in project intent (e.g. from upgrade to replacement). There is also an element of over-programming built into the DCP. This over-programming is a long-standing practice designed to provide flexibility and to aid in ensuring that best use is made of available funding in the event of delays to the development of individual projects.

The **Estimated Phase Expenditure** information will assist in providing a broad guide for planning, and will encourage early involvement of industry in dialogue on Defence's future capability proposals. The estimated expenditure is provided in FY 2005/06 prices and is in Australian dollars. In some cases the

'price' rises from DCP 2004-14 represent inflation or foreign exchange movements. For projects later in the DCP, inflationary or escalatory effects can be expected to increase the actual dollar figures at the time of approvals. As a result some projects may end up costing more than the initial band.

Project costing within the DCP continues to be refined following the precepts of the *Defence Procurement Review 2003*. The estimated expenditure data included in the DCP 2006-16 reflects improved cost estimates and takes into account the trends in inflationary or escalatory effects on military equipment particularly for those projects in the later years of the DCP.

The estimated expenditure information in the DCP 2006-16 is grouped into the following expenditure bands:

Less than $20m	$200m to $250m	$1500m to $2000m
$20m to $30m	$250m to $350m	$2000m to $2500m
$30m to $50m	$350m to $450m	$2500m to $3500m
$50m to $75m	$450m to $600m	$3500m to $4500m
$75m to $100m	$600m to $750m	$4500m to $6000m
$100m to $150m	$750m to $1000m	
$150m to $200m	$1000m to $1500m	

The expenditure band figures reflect the total estimated expenditure (including internal Defence costs) of bringing the new capability into service. In addition to the prime system expenditure, they include such elements as Government Furnished Material, Integrated Logistics Support (including initial stocks of spares, training, publications, facilities, and test and support equipment), and administrative expenditure. These elements can represent substantial proportions of the total expenditure on the proposal. As a rule of thumb, the main contract typically comprises around two-thirds of the total proposal expenditure, although the actual amount will vary depending on the nature of the proposal.

The estimated expenditure information is provided to give an indication of the scope and magnitude of specific proposals. The estimates for individual proposals are refined as the Plan develops through Defence's capability development and tendering processes. Industry should be aware that the 'Estimated Phase Expenditure' band information is indicative only, and does not necessarily represent how much the Government will eventually decide to pay for capabilities. In all capability decisions the choice to proceed with the project will continue to be made on a 'value for money' basis.

Points of Contact (both within the Capability Systems Staff and, where applicable, the Defence Materiel Organisation – or in some instances the Chief Information Officer Group) are provided should additional information on specific proposals be required. Project information should in the first instance be sought from the Capability Staff contact.

The following charts provide a broad indication of the magnitude of "Unapproved Defence Expenditure Proposals" over the period from FY 2006/07 to FY 2015/16 for proposals included in DCP 2006-16. The charts do not include already approved projects.

The proposals listed in this document are in varying stages of planning. Many have yet to be fully defined in both capability and possible equipment solution terms. There is no guarantee that all proposals will be agreed by the Government or that a project currently attributed to one industry sector might not be delivered through a different industry sector.

The unapproved proposals have been categorised into five broad industry sectors.

- Aerospace;
- Maritime;
- Vehicles and Land;
- Weapons and Munitions; and
- Electronic Systems

Proposals have been allocated to industry sectors based on the proportion of the estimated expenditure attributed to that sector. In particular, it should be noted that the major electronic systems elements of each capability are separated out from the platform element and included separately in the electronic systems sector. As such, the proposed expenditure outlined in the figures below for Aerospace, Maritime, and Vehicles and Land does not include the major electronic systems elements.

For example JP 2097 Phase 1 – Redfin has possible expenditure attributed to all five sectors. Expenditure for this project has been separated into the component sectors contributing to the delivery of the proposed capability.

The anticipated annual expenditure on the proposals in this DCP rises steadily to the end of the decade, with the investment in future acquisitions growing to around $5 billion per year. As can be seen in Figure 2, of these funds, over 45% is expected to be spent in the Electronics sector (including the major electronic systems elements of maritime, land and aerospace platforms) with Aerospace sector expenditure accounting for nearly 30%. The relatively low proportion of expenditure in the Maritime sector reflects the fact that a high percentage of expenditure on naval capabilities is on electronic systems (around 60-70% of the cost of the capability) rather than the platform itself.

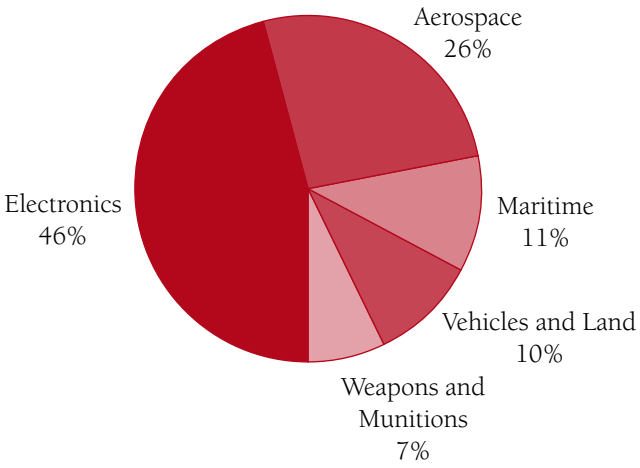

Figure 2: Estimated Industry Expenditure by Sector

Aerospace proposals typically have long lead times. As shown in Figure 3, expenditure on proposals peak in FY 2011/12 at just over $1.3 billion and then falls away slowly as platforms are acquired and introduced into service.

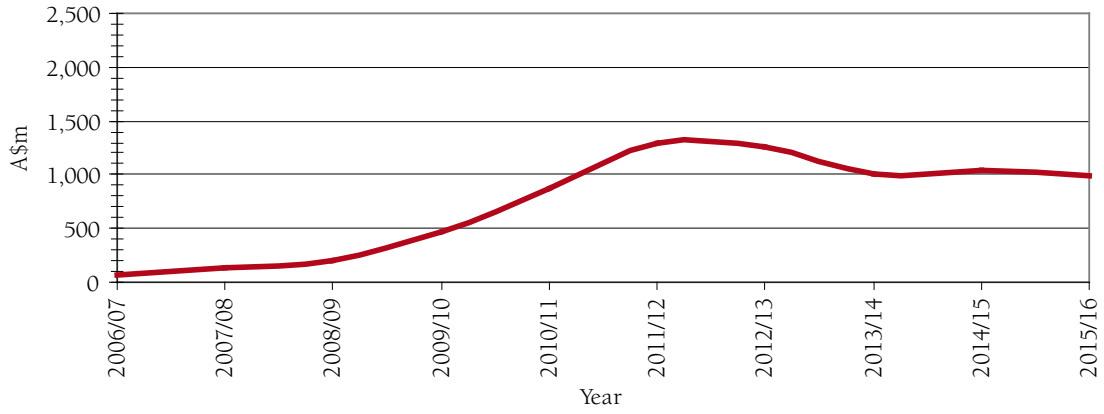

Figure 3: Aerospace

As shown in Figure 4, the value of proposed Maritime expenditure is expected to rise dramatically to approximately $650 million by FY 2010/11 as new platforms are commenced. Expenditure will taper off from FY 2011/12 and reaches a steady $250 million towards the end of the period. The DCP 2006-16 has two very large ship building proposals that extend across the decade. The profile in the chart shows that the DCP 2006-16 has made funding provision for the expected high upfront costs.

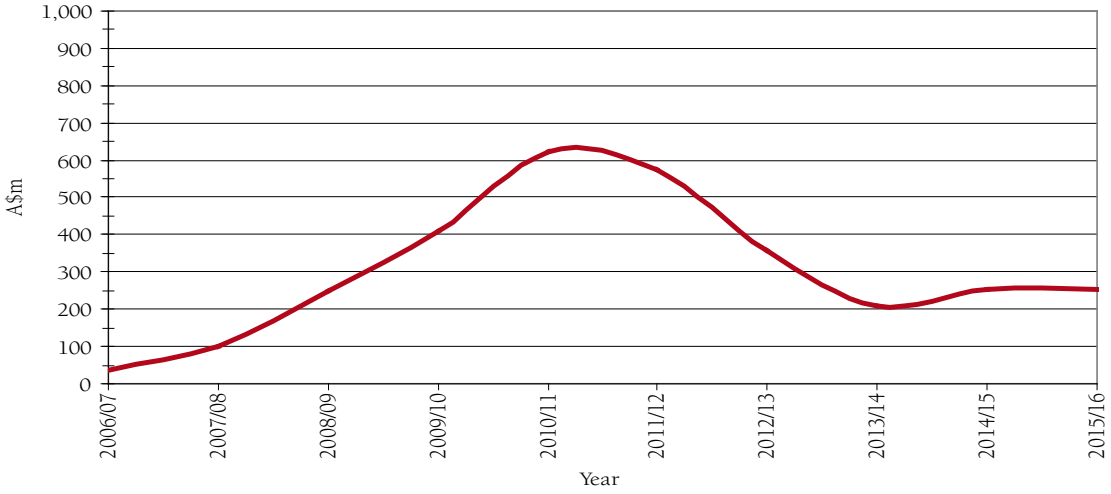

Figure 4: Maritime

Vehicles and Land projects comprise a mix of short and long duration projects. This is demonstrated in Figure 5 with proposed expenditure on new proposals increasing rapidly to $300 million by FY 2009/10 and then continuing to rise at a slower rate as the short duration projects are completed and the longer duration projects reach their critical stage.

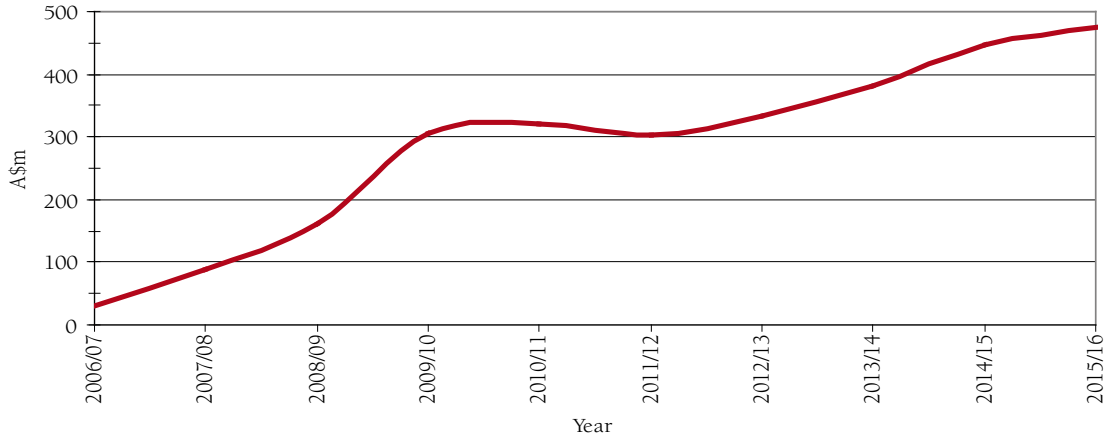

Figure 5: Land and Vehicles

Figure 6 below illustrates a sharp increase in Weapons and Munitions expenditure for new proposals to peak in FY 2011/12. The fall off in expenditure beyond this peak is due in part to the short term nature of many of these proposals. Also many more DCP projects are including weapons and munitions as part of their project rather than as a stand alone weapons project and it is hard to distinguish those quantities from the stand alone weapons project proposals.

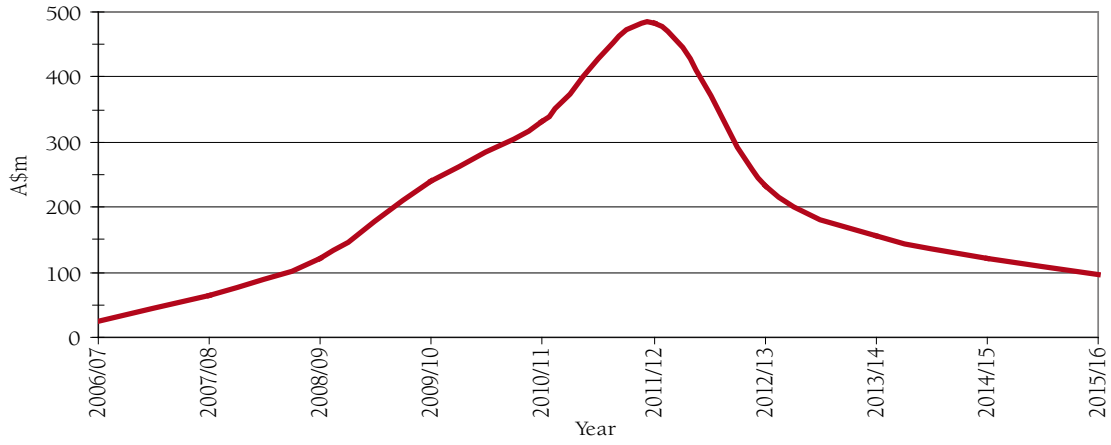

Figure 6: Weapons and Munitions

Figure 7 below illustrates the extent of the electronics components of new Defence proposals. The proposed new expenditure on electronics components is anticipated to increase to over $2 billion by FY 2011/12 and then falls away to reach a steady $1.5 billion towards the end of the period.

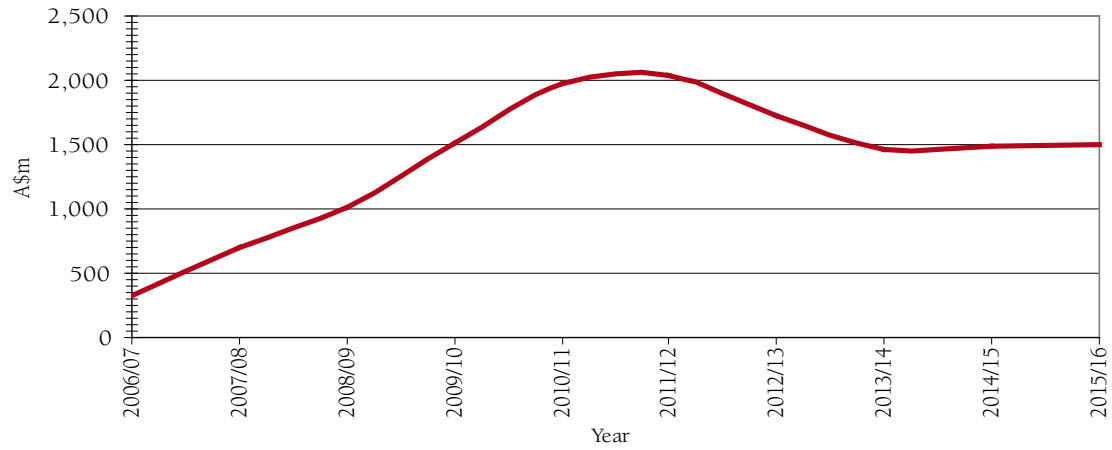

Figure 7: Electronics

DCP 2004-14 Proposals Approved

The table below shows the DCP 2004-14 Public Version proposals that have been approved, and as a consequence do not appear in this public version of the DCP. Some projects that were not included in DCP 2004-14 have also been approved. Information on approved projects is available through the Defence Material Organisation website at http://www.defence.gov.au/dmo.

Proposal Number	Phase	Name	Expenditure Band
AIR 5276	Phase 5	P-3C Orion EO Enhancement *(Partial approval Phase 5A, a new Phase 5B was created that has since been subsumed into the Capability Assurance Program which is in this DCP)*	$20m to $30m
AIR 5376	Phase 2.3	F/A-18 EWSP *(less Jammers Element, new phase 2.3C is in this DCP)*	$250m to $350m
AIR 5376	Phase 2.4	F/A-18 Forward Looking Infra-red Capability	$100m to $150m
AIR 5409	Phase 1	Bomb Improvement Program	$50m to $75m
AIR 5416	Phase 3	Enhanced EWSP for F-111 (RWR)	$30m to $50m
AIR 5416	Phase 4	C-130J EWSP (*Partial Approval Phase 4A, new Phase 4B is in this DCP*)	$20m to $30m
AIR 5418	Phase 1	Follow-on Stand-off Weapon Capability	$350m to $450m
AIR 9000	Phase 2	Additional Trooplift Helicopters	$750m to $1000m
AIR 9000	Phase 4	Black Hawk Mid-Life Upgrade (*together with Sea King Replacement*)	$2000m to $2500m
AIR 9000	Phase 5A	Chinook Upgrade – Early Engine Replacement	$30m to $50m
DEF 224	Phase 2B	BUNYIP – Acquisition	$150m to $200m
JP 1	Phase R	Harpoon Missiles Upgrade	$30m to $50m
JP 129	Phase 2	Airborne Surveillance for Land Operations	$100m to $150m
JP 2025	Phase 5	JORN Upgrade	$50m to $75m
JP 2047	Phase 2A	Defence Wide Area Communications Network	$10m to $20m
JP 2048	Phase 2	Amphibious and Afloat Support Study	Less than $10m
JP 2060	Phase 2B	Enhanced Deployable Medical Capability	$50m to $75m
JP 2080	Phase 2A	Defence Management Systems Improvement	Less than $10m
JP 2085	Phase 1B	Explosive Ordnance Warstock	$150m to $200m
JP 2090	Phase 1B	Combined Information Environment *(Study Phase 1B Approved, new Phase 1C is in this DCP)*	Less than $10m
JP 2095	Phase 1	Aviation Fire Trucks	$30m to $50m
JP 5408	Phase 2B	ADF GPS Enhancement	$50m to $75m
JP 8001	Phase 2B	HQAST – Collocation	$250m to $350m
LAND 125	Phase 2B	Soldier Combat System – Preliminary Design	$30m to $50m
LAND 146	Phase 1	Combat Identification for Land Forces *(Study Phase and initial capability Approved, new Phase 2 and 3 are in this DCP)*	Less than $10m
LAND 907	Phase 1	Main Battle Tank Replacement	$450m to $600m
SEA 1390	Phase 4B	FFG SM-1 Missile Replacement	$450m to $600m
SEA 1439	Phase 5B	Collins Continuous Improvement Program *(Partial Approval Phase 5B.1, new Phases 5B.2A and 5B.2B are in this DCP)*	$30m to $50m
SEA 1442	Phase 3	Maritime Communication & Information Management Architecture Modernisation – Initial Capability	$30m to $50m
SEA 1448	Phase 2B	ANZAC ASMD Upgrade – Fire Control Radar	$350m to $450m
SEA 1654	Phase 2A	Maritime Operational Support Capability – WESTRALIA Replacement	$100m to $150m
SEA 4000	Phase 1C	Air Warfare Destroyer Study	$10m to $20m
SEA 4000	Phase 2	Air Warfare Destroyer – Design Activity	$450m to $600m

DCP 2006-16 Proposals in Alphanumeric Order

The table below lists all the capability proposals detailed in the DCP 2006-16.

Proposal Number	Phase	Phase Name	Page
AIR 5077	Phase 4	Block upgrade for the AEW&C	13
AIR 5276	Phase 8B	AP-3C Electronic Support Measure – Acquisition	14
AIR 5276	CAP 1	AP-3C Capability Assurance Program	16
AIR 5276	CAP 2	AP-3C Capability Assurance Program	16
AIR 5276	CAP 3	AP-3C Capability Assurance Program	16
AIR 5376	Phase 2.3C	F/A-18 EWSP – Jammers	19
AIR 5376	Phase 3.2C	Hornet Structural Refurbishment Stage 2 – Additional	19
AIR 5405	Phase 1	Replacement Mobile Region Operations Centre	21
AIR 5416	Phase 4B	C-130J Electronic Warfare Self Protection (EWSP)	23
AIR 5428	Phase 1	Pilot Training System	25
AIR 5431	Phase 1	Future Air Traffic Control Surveillance Systems	26
AIR 5432	Phase 1	Communications, Navigation, Surveillance/Air Traffic Management	28
AIR 5438	Phase 1	Lead-in-Fighter Mid-life Upgrade	30
AIR 6000	Phase 2A/2B	New Aerospace Combat Capability	31
AIR 6000	Phase 2C	New Aerospace Combat Capability	31
AIR 7000	Phase 1B	Multi-mission Unmanned Aerial Vehicle (MUAV)	33
AIR 7000	Phase 2B	Maritime Patrol Aircraft	33
AIR 8000	Phase 1	C-130H Refurbishment/Replacement	37
AIR 8000	Phase 2	Battlefield Airlifter	37
AIR 9000		Overview	39
AIR 9000	Phase 3	Seahawk Mid-life Upgrade and Life Extension	40
AIR 9000	Phase 5B.1	Chinook Mid-Life Upgrade	42
AIR 9000	Phase 5B.2	Chinook Mid-Life Upgrade	42
AIR 9000	Phase 7A	Navy Helicopter Training System	44
AIR 9000	Phase 7B	Army Helicopter Training System	44
AIR 9000	Phase 8	Anti-Submarine Warfare/Anti-Surface Warfare Helicopter Capability	46
DEF 224	Phase 3	Force Level Electronic Warfare	48
DEF 7013	Phase 4	Joint Intelligence Support System	50
JP 66	Phase 1	Replacement for Air Defence Targets	52
JP 90	Phase 1	ADF Identification Friend or Foe	53
JP 126	Phase 2	Joint Theatre Distribution System	55
JP 129	Phase 3	Tactical Unmanned Aerial Vehicles (TUAV) – Enhancements/ Upgrades	57
JP 1770	Phase 1	Rapid Environmental Assessment	58
JP 2008	Phase 3F	Military Satellite Capability	59
JP 2008	Phase 4	Military Satellite Capability	59
JP 2030	Phase 8	ADF Joint Command Support Environment	62
JP 2030	Phase 9	ADF Joint Command Support Environment	62

Phase Scope

Phase 4 is intended to provide the first block upgrade for the Wedgetail Airborne Early Warning and Control (AEW&C) capability by addressing interoperability and maritime cooperative identification requirements.

Background

The AEW&C capability acquired through Project AIR 5077 will commence delivery to the ADF during 2006. Phase 4 is intended provide the first opportunity for any required capability upgrade for the AEW&C capability.

Although the exact scope has not yet been defined, AIR 5077 Phase 4 is expected to address interoperability and maritime cooperative identification requirements. It may include the fitting of an Automatic Identification System receiver and upgrades to the mission system integration and display capability, onboard the AEW&C aircraft, using the existing mission computing architecture, to assist in the identification of maritime assets.

The phase will also be the opportunity to identify additional work that might be required in subsequent phases.

Australian Industry Opportunities

Yet to be determined.

Planned Schedule Highlights

Year-of-Decision	FY 2015/16 to 2017/18
In-service Delivery	2018 to 2020

Estimated Phase Expenditure

$30m to $50m

Points of Contact

Phase 4

Capability Staff:
Wing Commander Peter Davies
(02) 6265 5561

Defence Materiel Organisation:
Gail Skidmore
(02) 6265 6344

Phase Scope

Phase 8B is intended to update components of the AP-3C aircraft's electronic warfare system to ensure it remains effective until the AP-3C planned withdrawal.

Background

Phase 8B will seek to upgrade the Air Force P-3 Orion Maritime Patrol Aircraft ALR 2001 Electronic Support Measures, and provide sufficient replacement components for the system to remain operational until the planned withdrawal date of the AP-3C.

This phase has received first pass approval from Government.

Australian Industry Opportunities

Overview

Capabilities and activities that may provide opportunities for Australian industry include:

ACTIVITIES	CAPABILITIES					
	Avionics	Electronic Warfare Systems	Information & Database Management Systems	Sensor Systems	Simulation Systems	Training Aids
Assembly/Construction	♦	♦	♦	♦	♦	♦
Configuration Management	♦	♦	♦	♦	♦	♦
Design	♦	♦	♦	♦	♦	♦
Education and Training	♦	♦	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦	♦	♦
Project Management	♦	♦	♦	♦	♦	♦
Simulation / Modelling		♦		♦	♦	
Systems Development		♦		♦	♦	♦
Systems Integration		♦		♦	♦	
Test and Evaluation	♦	♦	♦	♦	♦	♦

Acquisition

A Prime System Integrator has been engaged to support integration of new capabilities onto the AP-3C Weapon System.

Through-life Support

The Prime System Integrator will be expected to provide through-life support for the AP-3C Weapon System. It is anticipated that all elements delivered through this project will be supported through the Prime System Integrator arrangement.

Planned Schedule Highlights

Year-of-Decision	FY 2006/07
In-service Delivery	2007 to 2009

Estimated Phase Expenditure

$75m to $100m

Points of Contact

Phase 8B

Capability Staff:

Squadron Leader Greg Trott
(02) 6265 2115

Defence Materiel Organisation:

Ms Katrina Burzynski
(08) 8393 3582

Phase Scope

CAP 1 is intended to acquire additional electro-optics capabilities and new high-speed data links for the AP-3C.

CAP 2 is intended to upgrade or replace the AP-3C Data Management System.

CAP 3 is intended to enhance and sustain the mission system components of the AP-3C. This will include the radar, electronic support measures, data links, acoustic systems, and AP-3C mission simulator. Replacement and upgrade options will be considered for these systems.

Background

AIR 5276 is a multi-phased proposal to update the Air Force AP-3C Orion Maritime Patrol Aircraft. A number of these phases have been approved and are complete or being delivered. The remaining unapproved phases of AIR 5276 (with the exception of Phase 8B) have been subsumed and restructured into a new program known as the Orion Capability Assurance Program or CAP. CAP seeks to deliver all the same capability outcomes of the former AIR 5276 Phases but restructures program elements to enhance program efficiency and maximise capability outputs.

The subsumed AIR 5276 projects are:

- Phase 5B P-3C Orion EO Enhancement;
- Phase 6 Data Links for the AP-3C Orion;
- Phase 8C AP-3C Technology Insertion/Component Purchase; and
- Phase 9 AP-3C Orion Component Enhancements.

While previous AIR 5276 Phases focused primarily on the delivery of discrete mission systems, the CAP restructure seeks to deliver the program in coordinated and integrated blocks with a focus on capability outcomes and improved efficiency of delivery. CAP blocks will be delivered by the Defence Materiel Organisation as integrated elements of the AP-3C Block Upgrade Program or BUP. BUP is the preferred delivery mechanism for all current AP-3C projects including in-work AIR 5276 Phases, JP 2070, AIR 5276 CAP, and RAAF Minor Projects.

Defence will seek Government approval in three discrete but related CAP blocks. The CAP blocks are:

- CAP 1 (previously elements of Phase 5B, 6 and 9) is intended to build on the success of previous electro-optic acquisitions and provide the AP-3C with a fleet-wide fit of modern electro-optic sensors, complete with aircrew training and engineering support elements. In addition, CAP 1 seeks to acquire a Tactical Common Data Link or similar capability for the AP-3C, enabling the high-speed streaming transmission of sensor data to cooperating units. CAP 1 will also consider options to update the AP-3C Systems Engineering Laboratory (SEL). SEL upgrades will be considered in order to improve AP-3C supportability and facilitate integration tasks in CAP 2 and CAP 3 blocks.
- CAP 2 (previously elements of Phase 9) is intended to replace/upgrade the AP-3C Data Management System (DMS). The DMS is the centre of the AP-3C mission system and upgrades are essential to ensure the continued availability of AP-3C's capabilities. An updated DMS will also ensure that follow-on systems sought under CAP 3 will have a robust and modern core to facilitate the task of integration and through-life support.
- CAP 3 (previously elements of Phase 6, Phase 8C and Phase 9) is intended to replace or upgrade the radar, mission simulator, acoustic system, data links, and electronic support measures in the AP-3C Orion fleet to ensure that the capability provided is effective until its planned withdrawal date.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in CAP 1 include:

ACTIVITIES	CAPABILITIES			
	Avionics	Information & Database Management Systems	Sensor Systems	Simulation Systems
Assembly / construction	♦			♦
Configuration Management			♦	
Design	♦	♦		♦
Education and Training	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦
Project Management	♦	♦	♦	♦
Refurbishment / Outfitting		♦	♦	♦
Simulation / Modelling		♦		
Systems Development		♦	♦	
Systems Integration		♦	♦	
Test and Evaluation		♦	♦	♦

Capabilities and related activities that may provide opportunities for Australian industry in CAP 2 include:

ACTIVITIES	CAPABILITIES			
	Avionics	Communication Systems	Information & Database Management Systems	Simulation Systems
Assembly / Construction	♦		♦	
Design	♦		♦	
Education and Training	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦
Project Management	♦	♦		♦
Refurbishment / Outfitting	♦	♦		
Simulation / Modelling				♦
Systems Development		♦	♦	♦
Systems Integration		♦	♦	♦
Test and Evaluation	♦	♦	♦	♦

Capabilities and related activities that may provide opportunities for Australian industry in CAP 3 include:

ACTIVITIES	CAPABILITIES			
	Sensor Systems	Simulation Systems	Software Systems	Systems Architecture
Design		♦	♦	♦
Education and Training	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦
Project Management	♦	♦	♦	♦
Refurbishment / Outfitting	♦	♦		♦
Simulation / Modelling		♦		
Systems Development	♦	♦	♦	♦
Systems Integration	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦

Acquisition

A Prime System Integrator is expected to be engaged to support integration of new capabilities onto the AP-3C Weapon System. The Prime Systems Integrator and its subcontractors will be expected to integrate individual projects under a Block Upgrade concept.

Through-life Support

The Prime System Integrator will be expected to provide through-life support for the AP-3C Weapon System. It is anticipated that all elements delivered through this project will be supported through the Prime System Integrator arrangement.

Planned Schedule Highlights

Year-of-Decision	CAP 1 – FY 2006/07
	CAP 2 – FY 2008/09 to FY 2010/11
	CAP 3 – FY 2009/10 to FY 2011/12
In-service Delivery	CAP 1 – 2008 to 2010
	CAP 2 – 2010 to 2012
	CAP 3 – 2012 to 2014

Estimated Phase Expenditure

CAP 1 – $20m to $30m
CAP 2 – $75m to $100m
CAP 3 – $150m to $200m

Points of Contact

CAP 1, 2 and 3

Capability Staff:
Squadron Leader Kevin Beaulne
(02) 6265 5447

Defence Materiel Organisation:
Wing Commander Stephen Watts
(02) 6265 5534

Phase Scope

Phase 2.3C is intended to procure a complementary radio frequency jammer to augment the F/A-18 Electronic Warfare Self Protection (EWSP) Suite.

Phase 3.2C is intended to allow a more extensive structural refurbishment of additional aircraft to ensure sufficient aircraft structural life to transition the air combat capability from F/A-18 to the New Aerospace Combat Capability (NACC) to be acquired under Project AIR 6000.

Background

AIR 5376 comprises three phases overall. The first two phases (Phase 1 and Phase 2) have been largely approved.

Phase 1, which has now been completed, comprised enhancement of the aircraft's anti-jamming communications capability, upgrade of the mission computers, installation of an additional data bus, and improvement in target identification, navigation and situational awareness systems. Phase 1 also implemented upgrades to the associated F/A-18 maintenance, software and training support infrastructure.

Phase 2 seeks to incorporate advanced avionics and weapon systems into the F/A-18, and includes:

- Phase 2.1 (complete) replacement of the Fire Control Radar and introduction of an Enhanced Interference Blanking Unit;
- Phase 2.2 (approved) incorporation of a secure jamming-resistant Link 16 Data Transfer System, a full Colour Display Upgrade, a Digital (Moving) Map System, the Joint Helmet Mounted Cuing System, and the upgrade of the Counter Measures Dispensing System (CMDS);
- Phase 2.3 (approved, with the exception of the complementary radio frequency jammer) in which the F/A-18 Electronic Warfare Self Protection (EWSP) will be upgraded, including replacement of the Radar Warning Receiver and further upgrades to the CMDS;
- Phase 2.3C is intended to procure a complementary radio frequency jammer finalise the EWSP capability upgrade for the aircraft; and
- Phase 2.4 (approved) which seeks to improve the detection, identification, precision targeting and damage assessment phases of RAAF F/A-18 counter air, strike and offensive air support operations currently supported by the AN/AAS-38 Nite Hawk targeting Forward Looking Infra-Red pod.

Phase 3 seeks to restore the structural life of the F/A-18 Hornet airframe to enable transition to the NACC. This phase comprises of structural refurbishment programs as follows:

- Phase 3.1 (approved) involves the design, development and installation of minor structural modifications and inspections required halfway through the fatigue life of the aircraft. This will address the most immediate structural deficiencies and ensure structural integrity through to Phase 3.2;
- Phase 3.2B (approved) involves a program featuring the replacement of a number of discrete structural components and all preparatory activity to conduct an aircraft centre barrel replacement program; and
- Phase 3.2C involves the procurement and installation of centre barrel modification kits to provide sufficient aircraft structural life to transition the air combat capability from F/A-18 to the New Air Combat Capability.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in Phase 2.3C include:

ACTIVITIES	CAPABILITIES
	Electronic Warfare Systems
In Service Support	♦
Systems Integration	♦
Test and Evaluation	♦

Capabilities and related activities that may provide opportunities for Australian industry in Phase 3.2C include:

ACTIVITIES	CAPABILITIES
	Structures
Refurbishment/Outfitting	♦

Acquisition

Phase 2.3C – Australian industry involvement will depend on equipment selection.

Through-life Support

Phase 2.3C – Opportunities may exist in the area of aircraft installation and system support.

Phase 3.2C – The upgrades are based on existing designs limiting opportunities for Australian industry in design and development. The modification work may be conducted in Australia if this is cost effective and therefore could be performed by the Hornet Industry Coalition.

Planned Schedule Highlights

Year-of-Decision	Phase 2.3C – FY 2006/07
	Phase 3.2C – FY 2005/06
In-service Delivery	Phase 2.3C – 2007 to 2009
	Phase 3.2C – 2009 to 2011

Estimated Phase Expenditure

Phase 2.3C – $50m to $75m

Phase 3.2C – $600m to $750m

Points of Contact

Phase 2.3C

Capability Staff:

Wing Commander Robert Chipman

(02) 6265 4897

Defence Materiel Organisation:

Wing Commander Mark French

(02) 4928 6904

Phase 3.2C

Capability Staff:

Wing Commander Robert Chipman

(02) 6265 4897

Defence Materiel Organisation:

Wing Commander Ian Nesbitt

(02) 4928 6989

Phase Scope

The phase is intended to replace the Mobile Region Operations Centre (MROC), currently operated by 114 Mobile Control and Reporting Unit based at RAAF Darwin, with an upgraded system with modern equipment and capabilities better able to support future ADF operations.

Background

The RAAF No. 114 Mobile Control and Reporting Unit at RAAF Base Darwin operate the system that provides the ADF with this capability. This system comprises the Tactical Air Defence System and a MROC. An interim upgrade to a number of components is being undertaken to ensure a MROC capability remains available from the current system, until its replacement under this phase. Where possible, AIR 5405 intends to leverage off other existing projects such as LAND 121 – Overlander Field Vehicle and Trailer Replacement to ensure commonality and interoperability with existing or emerging capabilities.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES								
	Command & Control Systems	Communication Systems	Data Fusion Technologies	Radar Technologies	Sensor Systems	Simulation Systems	Software Systems	Surveillance & Reconnaissance Systems	Training Aids
Assembly/Construction	♦	♦	♦	♦	♦	♦	♦	♦	♦
Configuration Management	♦	♦	♦	♦	♦	♦	♦	♦	♦
Design	♦	♦	♦	♦	♦	♦	♦	♦	♦
Education and Training	♦	♦	♦	♦	♦	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦	♦	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦	♦	♦	♦	♦	♦
Project Management	♦	♦	♦	♦	♦	♦	♦	♦	♦
Simulation / Modelling	♦	♦	♦	♦	♦	♦	♦	♦	♦
Systems Development	♦	♦	♦	♦	♦	♦	♦	♦	♦
Systems Integration	♦	♦	♦	♦	♦	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦	♦	♦	♦	♦	♦

Acquisition

Areas on which requirements are anticipated to focus include:

- development of the overall MROC design;
- integration of the new system with a range of existing sensor and data systems;
- integration of communications systems;
- test and evaluation; and
- tactical deployability and logistics supportability in remote locations.

Through-life Support

The industry requirements will be based around developing and maintaining sufficient capability within Australian industry to undertake through-life maintenance and support activities necessary to sustain this mobile/deployable system.

Planned Schedule Highlights

Year-of-Decision	FY 2007/08
In-service Delivery	2009 to 2011

Estimated Phase Expenditure

$75m to $100m

Points of Contact

Phase 1

Capability Staff:

Squadron Leader Richard Harrison
(02) 6265 2216

Defence Materiel Organisation:

Mr Geoff Davidson
(02) 6265 6291

Phase Scope

AIR 5416 Phase 4B is intended to provide additional Electronic Warfare Self Protection (EWSP) for the C-130J aircraft comprising of options for radar warning, laser warning, radar counter-measures and infra-red counter-measure systems.

Background

AIR 5416 (Echidna) is a multi-phased proposal to develop comprehensive EWSP capabilities for selected ADF aircraft. Other phases of this project include:

- Phase 1 (approved) is in progress and includes the full scale engineering development of the ALR-2002 Radar Warning receiver by BAE Systems Australia and elements of an ADF-wide counter-measures development and validation capability for in-service and soon to be introduced EWSP equipment;
- Phase 1 Stage 3 (approved) is in progress and covers the provision of ballistic protection measures for the Black Hawk aircraft;
- Phase 1A (approved) is in progress and includes elements of an ADF-wide counter-measures development and validation capability for current in-service and soon to be introduced EWSP equipment not covered in Phase 1;
- Phase 2 (approved) will cover the implementation of the Black Hawk, Chinook and C-130H EWSP capabilities defined during the Phase 1 Initial Design Activity;
- Phase 3 (approved) builds upon the capability baseline established under AIR 5391 Phase 6 F-111 Interim EWSP, by providing enhancement of the F-111 EWSP capability, including an upgrade of the Radar Warning system; and
- Phase 4A (approved) was brought forward from the original Phase 4 and is providing a missile warning and flare dispensing capability for the C-130J. The remainder of the Phase 4 scope is in the unapproved Phase 4B.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES		
	Avionics	Electronic Warfare Systems	Software Systems
Assembly / Construction		♦	
Design	♦	♦	♦
In-Service Support	♦	♦	♦
Logistical Support	♦	♦	♦
Project Management	♦	♦	♦
Simulation / Modelling			♦
Systems Development	♦	♦	♦
Systems Integration		♦	♦

Acquisition

The areas on which requirements are anticipated to focus include:

- research, design and development, including both software and hardware, of the system in order to enhance Australia's operational capability and future developments in EWSP technology;
- EWSP technologies and support information systems; and
- production of EWSP products.

Through-life Support

The industry requirements are expected to be based around developing and maintaining sufficient capability within Australia to undertake the range of through-life software and hardware, and maintenance/logistics support activities.

Planned Schedule Highlights

Year-of-Decision	FY 2008/09 to 2010/11
In-service Delivery	2011 to 2013

Estimated Phase Expenditure

$75m to $100m

Points of Contact

Phase 4B

Capability Staff:

Squadron Leader Cameron Leslie
(02) 6265 4444

Defence Materiel Organisation:

Mr Laurie Bode
(02) 6265 1615

Phase Scope

This phase is intended to provide the ADF with a fixed wing pilot training system tailored to meet the training needs of future ADF aircrew.

Background

The project aims to utilise advanced training systems to increase the efficiency and effectiveness of the fixed wing pilot training system. The system is Tri-Service in its deliverables and aims to accommodate the training needs of Navy, Army and Air Force.

Australian Industry Opportunities

Overview

It is anticipated that Australian industry will be involved in a number of project definition studies to determine the scope of the project. Further opportunities will depend on the implementation strategy.

Acquisition

Although the industry requirements are yet to be determined, the requirements are anticipated to include:

- pilot training system design, development and implementation; and
- test and evaluation.

Through-life Support

Subject to further definition, the following industry involvement in through-life support is anticipated to include:

- training system maintenance;
- training management;
- training development;
- training delivery; and
- logistics support.

Planned Schedule Highlights

Year-of-Decision	FY 2008/09 to 2010/11
In-service Delivery	2012 to 2014

Estimated Phase Expenditure

$600m to $750m

Points of Contact

Phase 1

Capability Staff:
Squadron Leader Grant Christensen
(02) 6265 5121

Defence Materiel Organisation:
Wing Commander Stephen Watts
(02) 6265 5534

Phase Scope

This phase is intended to investigate Air Traffic Control (ATC) surveillance requirements for the ADF, both from a Defence and a National perspective. The outcome of this phase is expected to lead to the rationalisation and possible acquisition of replacement surveillance systems at RAAF Bases Tindal and East Sale, and also the Army Aviation Centre at Oakey. This phase may also identify the future upgrade/ replacement path for other ATC surveillance systems within the ADF.

Background

No. 44 Wing at RAAF Williamtown provides ATC radar services at RAAF Bases Tindal and East Sale and the Army Aviation Centre Oakey using Alenia radars that are integrated into the Australian Defence Air Traffic System (ADATS).

This project aims to replace the capability provided by the Alenia radars. It will also define military ATC surveillance requirements, both from a National and Defence perspective to ensure future capability acquisition meets ADF Air Traffic Management (ATM) and Australian Air Defence System requirements. New technologies and synergies with existing 41/44 Wing equipment will be explored and evaluated, as well as any requirement for additional new fixed or deployable air traffic management systems. It is envisaged that AIR 5431 will inform Project AIR 5432 Communications, Navigation, Surveillance/ Air Traffic Management (CNS/ATM) with regards to future surveillance issues and also identify the replacement path for the ADATS radars.

The AIR 5431 capability will need to integrate with current ATC and Air Defence systems, including AIR 5186 – ADATS, AIR 5333 – Vigilare and AIR 5375 – Tactical Air Defence Radars. The capability solution will also need to integrate with the national Air Traffic Management System.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES						
	Communication Systems	Radar Technologies	Sensor Systems	Simulation Systems	Software Systems	Surveillance & Reconnaissance Systems	Training Aids
Assembly / Construction	♦	♦	♦	♦	♦	♦	♦
Configuration Management	♦	♦	♦	♦	♦	♦	♦
Design	♦	♦	♦	♦	♦	♦	♦
Education and Training	♦	♦	♦	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦	♦	♦	♦
Project Management	♦	♦	♦	♦	♦	♦	♦
Simulation / Modelling	♦	♦	♦	♦	♦	♦	♦
Systems Development	♦	♦	♦	♦	♦	♦	♦
Systems Integration	♦	♦	♦	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦	♦	♦	♦

Acquisition

The areas on which industry requirements are anticipated to focus include:

- removal and disposal of existing radars;
- provision of new air traffic management systems;
- integration of the new air traffic management systems into extant ATM systems, e.g. ADATS and The Australian Advanced Air Traffic System;
- development of appropriate training systems for operators and maintenance staff and, if applicable, integration within extant simulation and/or training systems; and
- test and evaluation.

Through-life Support

The industry requirements will be based around developing and maintaining sufficient capability within Australian industry to undertake the range of through-life maintenance and support activities necessary to sustain the system(s).

Planned Schedule Highlights

Year-of-Decision	FY 2007/08
In-service Delivery	2010 to 2012

Estimated Phase Expenditure

$50m to $75m

Points of Contact

Phase 1

Capability Staff:

Squadron Leader Jason Burstow
(02) 6266 7317

Defence Materiel Organisation:

Wing Commander Stephen Watts
(02) 6265 5534

Phase Scope

This phase is intended to identify the various capabilities needed for the ADF's space, air, maritime and ground based systems to ensure that airspace use and air traffic management is optimised for both military and civilian users.

Background

AIR 5432 aims to identify and acquire or enhance various capabilities of the ADF's space, air, maritime and ground-based systems to ensure that airspace use and air traffic management is optimised for both military and civilian users. The proposal will examine a broad range of capability options and enhancements that would provide an on-going capability.

Australian Industry Opportunities

Overview

Initially, there will be an opportunity for Australian industry to undertake a project definition study during Phase 1 to determine the scope of future phases of the project. Further opportunities will depend on the scope of planned implementation resulting from the initial study.

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES									
	Avionics	Communication Systems	Data Fusion Technologies	Information & Database Management Systems	Simulation Systems	Surveillance & Reconnaissance Systems	Training Aids	Air Traffic Management Systems	Navigation Systems	Air Defence Systems
Assembly / Construction	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
Configuration Management	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
Design	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
Education and Training	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
Project Management	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
Simulation / Modelling	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
Systems Development	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
Systems Integration	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦

Acquisition

The requirements are anticipated to include:

- undertaking a project definition study;
- integration of new systems with a range of existing sensor and data systems; and
- test and evaluation.

Through-life Support

The industry requirements will be based around developing and maintaining sufficient capability within Australian industry to undertake the through-life maintenance and support activities associated with the components and systems introduced into service by this project.

Planned Schedule Highlights

Year-of-Decision	FY 2009/10 to 2011/12
In-service Delivery	2013 to 2015

Estimated Phase Expenditure

$30m to $50m

Points of Contact

Phase 1

Capability Staff:

Squadron Leader Jason Burstow
(02) 6266 7317

Defence Materiel Organisation:

Wing Commander Stephen Watts
(02) 6265 5534

Phase Scope

This phase is intended to provide the New Aerospace Combat Capability (NACC) with an effective lead-in fighter training capability by upgrading the Hawk Lead-in Fighter to incorporate sustainability modifications and a range of capability enhancements.

Background

AIR 5438 aims to provide a mid-life upgrade to the Hawk to enable the aircraft to reach its life-of-type and effectively satisfy the lead-in fighter requirements of NACC and broader ADF training support requirements. The project will investigate sustainability modifications required to address obsolescence, maintainability and reliability issues and examine a range of capability enhancement options.

The precise nature and composition of the ensuing acquisition phase will be determined by the capability definition study to be conducted.

Australian Industry Opportunities

Overview

It is anticipated that Australian industry will be involved in several project definition studies to determine the scope of the project. Further opportunities will depend on the implementation strategy.

Acquisition

Although the industry requirements are yet to be determined, the requirements are anticipated to include:

- engineering design;
- aircraft modification; and
- test and evaluation.

Through-life Support

The industry requirements will be based around developing and maintaining sufficient capability within Australian industry to undertake through-life maintenance and support activities associated with the components and systems introduced into service by this project.

Planned Schedule Highlights

Year-of-Decision	FY 2013/14 to 2015/16
In-service Delivery	2017 to 2019

Estimated Phase Expenditure

$350m to $450m

Point of Contact

Phase 1

Capability Staff:
Wing Commander Robert Chipman
(02) 6265 4897

Defence Materiel Organisation:
Wing Commander Stephen Watts
(02) 6265 5534

Phase Scope

Phase 2A/2B is intended to acquire the first tranche of new multi-role combat aircraft to replace F/A-18 Hornets and the F-111 aircraft fleet as they are withdrawn from service.

Phase 2C intends to investigate acquisition of complementary systems and possibly acquire the final tranche of new multi-role combat platforms.

Background

The Government has identified that this capability could be provided by the Lockheed Martin F-35 Joint Strike Fighter (JSF) and has as a result joined with other partner nations in the System Development and Demonstration (SDD) Phase.

Detailed definition and analysis activities necessary to determine the optimum force mix solution and provide Government with the information to support an initial acquisition approval will be conducted during AIR 6000 Phase 1: Definition, Analysis and Risk Mitigation.

AIR 6000 Phase 2 is the acquisition phase of the proposal. It aims to introduce a new air combat capability with the functions of air dominance and strike currently provided by the ADF F/A-18 and F-111 aircraft fleets.

Australian Industry Opportunities

Overview

Defence needs to deliver cost effective Defence capability through sustainment of critical industry capabilities related to combat aircraft. This leads to a focus on involvement in technological aspects of JSF, including engineering design, software development and electronic warfare; placing the fleet management on a more commercial footing through provision of strategic support capabilities; and early engagement, through scientific collaboration, in design and development of next generation technologies for upgrades to the JSF aircraft. Achieving this through Australian industry increasingly sustained on a commercial basis will also require local industry participation in manufacture and supply of JSF components and equipment. The specific nature of these needs is being evolved as the design of the aircraft matures.

Australia seeks to become part of the global supply chain for large international aerospace industries consistent with the Australian Defence Aerospace Sector Strategic Plan and the Australian Aerospace Industry Action Agenda. Traditional Australian industry involvement is not available and has not been sought in this project. Rather, through international competition, Australia will seek to maximise participation in the global JSF project comprising the current SDD phase and subsequent Low Rate Initial Production, Full Rate Production, through-life support and Follow-on Development phases of the program.

If Australia proceeds with the procurement of the JSF the Prime Contractor in the US Government Contract will be Lockheed Martin. Northrop Grumman, BAE Systems and Pratt and Whitney are other key suppliers.

Acquisition

The aim is to maximise the quality and quantity of work for Australian industry throughout the life of the JSF project, and in doing so embed Australian industry into the JSF global supply chain.

Through-life Support

Australia is seeking to participate in the global support arrangements for the JSF aircraft and as such is seeking to establish an Australian-based regional support capability for the JSF serving not only Australian aircraft but those operated and deployed into the region by the US and other nations.

Planned Schedule Highlights

Year-of-Decision	Phase 2A/2B – FY 2008/09 to 2010/11
	Phase 2C – FY 2014/15 to 2016/17
In-service Delivery	Phase 2A/2B – 2012 to 2014
	Phase 2C – 2018 to 2020

Estimated Phase Expenditure

Phase 2A/2B – $4500m to $6000m for each of Phases 2A and 2B

Phase 2C – $2500m to $3500m

Points of Contact

Phase 2A/2B and 2C

Capability Staff:

Group Captain Michael Maher

(02) 6265 5537

Defence Materiel Organisation:

Mr Bill Greenwood

(02) 6265 7478

Phase Scope

Phase 1B is intended to acquire High Altitude Long Endurance Unmanned Aerial Systems for maritime patrol and other surveillance.
Phase 2B is intended to provide the manned component of the ADF maritime patrol capability that may involve upgrade or replacement of the AP-3C Orion aircraft.

Background

The life-of-type for the AP-3C is being driven by the increasing cost of addressing airframe fatigue and corrosion, aircraft system supportability and mission system obsolescence. The airframe and aircraft systems, including engines, hydraulics, electrical and fuel systems will become more costly to support as the aircraft ages. Although mission system obsolescence is being addressed under Project AIR 5276, a further upgrade may be required to extend its useful life. Either a major refurbishment or replacement of the AP-3C capability will be required by its planned withdrawal date.

AIR 7000 will consider the future of the AP-3C in the context of future ADF requirements for maritime patrol and response. This will include the exploration of a broad range of options including aircraft refurbishment/re-manufacture or replacement, and the use of Unmanned Aerial Systems (UAS) as an adjunct to manned platforms. While the project will be focused on the acquisition of a capability centred on maritime patrol and response roles, it will also support electronic and land surveillance roles.

Phase 1B is intended to consider and further develop options leading to the acquisition of a high altitude long endurance unmanned aerial system that can perform all-weather, long endurance surveillance and reconnaissance tasks over maritime and land environments. The Phase 1 capability is an essential adjunct to the manned capability acquired under Air 7000 Phase 2B.

Phase 2B is intended to ensure that the ADF has a manned Maritime Patrol Aircraft system capable of performing maritime patrol and response tasks. The schedule highlights developed later in this section refer to the likely timing of replacement options, however should the option be taken to upgrade the current AP-3C aircraft there would need to be changes to that schedule.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in Phase 1B include:

ACTIVITIES	CAPABILITIES								
	Avionics	Command & Control Systems	Commun-ication Systems	Data Fusion Technologies	Information & Database Management Systems	Photonics Technologies	Propulsion Systems	Radar Technol-ogies	Sensor Systems
Assembly / Construction	♦	♦	♦	♦	♦	♦			♦
Configuration Management	♦	♦	♦	♦	♦	♦		♦	♦
Design	♦	♦	♦	♦	♦	♦			♦
Education and Training					♦				♦
In-Service Support	♦	♦	♦	♦	♦	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦	♦	♦	♦	♦	♦
Project Management	♦					♦			
Refurbishment / Outfitting	♦		♦			♦		♦	♦

ACTIVITIES	CAPABILITIES								
	Avionics	Command & Control Systems	Commun-ication Systems	Data Fusion Technologies	Information & Database Management Systems	Photonics Technologies	Propulsion Systems	Radar Technol-ogies	Sensor Systems
Simulation / Modelling	♦		♦	♦				♦	♦
Systems Development	♦	♦	♦	♦	♦	♦		♦	♦
Systems Integration	♦	♦	♦	♦	♦	♦		♦	♦
Test and Evaluation	♦	♦	♦	♦	♦	♦	♦	♦	♦

ACTIVITIES	CAPABILITIES							
	Simulation Systems	Software Systems	Space Based Communication	Structures	Surveillance & Reconnaissance Systems	Systems Architecture	Training Aids	Underwater Acoustic Technologies
Assembly / Construction	♦			♦				♦
Configuration Management	♦	♦	♦	♦		♦		♦
Design	♦	♦	♦	♦		♦	♦	♦
Education and Training	♦				♦		♦	♦
In-Service Support	♦	♦	♦	♦	♦		♦	♦
Logistical Support	♦	♦			♦			♦
Project Management	♦					♦	♦	
Refurbishment / Outfitting	♦			♦	♦			♦
Simulation / Modelling	♦	♦	♦		♦			♦
Systems Development	♦	♦	♦		♦	♦		♦
Systems Integration	♦	♦	♦		♦			♦
Test and Evaluation	♦	♦	♦			♦	♦	♦

Capabilities and related activities that may provide opportunities for Australian industry in Phase 2B include:

ACTIVITIES	CAPABILITIES								
	Avionics	Command & Control Systems	Communication Systems	Data Fusion Technologies	Electronic Warfare Systems	Information & Database Management Systems	Photonics Technologies	Propulsion Systems	Radar Technologies
Assembly / Construction	♦	♦	♦	♦	♦	♦	♦		
Configuration Management	♦	♦	♦	♦	♦	♦	♦		♦
Design	♦	♦	♦	♦	♦	♦	♦		
Education and Training					♦	♦			
In-Service Support	♦	♦	♦	♦	♦	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦	♦	♦	♦	♦	♦
Project Management	♦						♦		
Refurbishment / Outfitting	♦				♦		♦	♦	♦
Simulation / Modelling	♦		♦	♦	♦			♦	♦
Systems Development	♦	♦	♦	♦	♦	♦	♦		♦
Systems Integration	♦	♦	♦	♦	♦	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦	♦	♦	♦	♦	♦

ACTIVITIES	CAPABILITIES									
	Sensor Systems	Simulation Systems	Software Systems	Space Based Communication	Structures	Surveillance & Reconnaissance Systems	Systems Architecture	Training Aids	Underwater Acoustic Technologies	Weapon Systems
Assembly / Construction	♦	♦			♦				♦	♦
Configuration Management	♦	♦	♦	♦	♦		♦			♦
Design	♦	♦	♦	♦	♦		♦	♦	♦	♦
Education and Training	♦	♦				♦		♦	♦	♦
In-Service Support	♦	♦	♦	♦	♦	♦		♦	♦	♦
Logistical Support	♦	♦	♦		♦	♦			♦	♦
Project Management		♦					♦	♦		
Refurbishment / Outfitting	♦	♦			♦		♦		♦	♦
Simulation / Modelling	♦	♦	♦	♦		♦			♦	♦
Systems Development	♦	♦	♦	♦		♦	♦		♦	♦
Systems Integration	♦	♦	♦	♦		♦			♦	♦
Test and Evaluation	♦	♦	♦	♦			♦	♦	♦	♦

Acquisition

The areas on which Australian industry involvement requirements are anticipated to focus in Phase 1B include:

- systems integration;
- through-life support;
- development and implementation of an Integrated Ground Environment for command and control, mission planning, information management and training for the UAS and manned systems; and
- development and implementation of a data exploitation, display and dissemination system.

Through-life Support

Full through-life support is required for both Phases 1B and 2B. Opportunities should exist for through-life support of the strategic surveillance Unmanned Aerial Vehicle system in the traditional areas of airframe, engine, platform utilities and ground-based systems. Main focus areas would be deeper maintenance, possibly some operational level maintenance, supply support and inventory management.

Planned Schedule Highlights

Year-of-Decision	Phase 1B – FY 2007/08
	Phase 2B – FY 2011/12 to 2013/14
In-service Delivery	Phase 1B – 2009 to 2011
	Phase 2B – 2015 to 2017

Estimated Phase Expenditure

Phase 1B – $1000m to $1500m

Phase 2B – $3500m to $4500m

Points of Contact

Phase 1B

Capability Staff:

Wing Commander Warren McDonald
(02) 6265 4939

Defence Materiel Organisation:

Wing Commander Colin Thomson
(02) 6265 1628

Phase 2B

Capability Staff:

Wing Commander Kevin Murray
(02) 6265 3852

Defence Materiel Organisation:

Wing Commander Colin Thomson
(02) 6265 1628

Phase Scope

Phase 1 involves either replacement of the Royal Australian Air Force (RAAF) C-130H Hercules transport aircraft, or refurbishment to extend the platform life-of-type until at least 2020.

Phase 2 involves either replacement of the RAAF DHC-4 Caribou transport aircraft, or refurbishment to extend the platform life-of-type until at least 2020.

Background

AIR 8000 Phase 1 aims to replace or refurbish the RAAF C-130H Hercules transport aircraft. Replacement could be with other C-130 or other platform types. The refurbishment proposal would see a major refurbishment of the existing C-130H fleet to extend the platform life-of-type until at least 2020. The refurbishment would require structural, hardware and software upgrades to allow the platform to operate in the global inter- and intra-theatre roles.

AIR 8000 Phase 2 seeks to enhance the ADF's intra-theatre and regional airlift capability. This capability will focus on the provision of an intra-theatre airlift solution with some inter-theatre application. This capability will be able to operate from a wide range of rudimentary airstrips with useful payload, range and in-theatre survivability. Phase 2 may also have to provide appropriate training support, which could include the provision of a Full Flight Simulator. Notably, the capability will require careful consideration of the interaction between rotary-wing assets and light /medium fixed wing platforms in the tactical environment and the total airlift fleet mix.

There is an option to combine the Phases for a common outcome, and the exact mix between the medium and light tactical airlift capabilities is still uncertain.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in Phase 1 include:

ACTIVITIES	CAPABILITIES			
	Avionics	Communication Systems	Simulation Systems	Software Systems
Assembly / Construction	♦	♦	♦	♦
Configuration Management	♦	♦	♦	♦
Design	♦	♦	♦	♦
Education and Training	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦
Project Management	♦	♦	♦	♦
Refurbishment / Outfitting	♦	♦	♦	♦
Simulation / Modelling	♦	♦	♦	♦
Systems Development	♦	♦	♦	♦
Systems Integration	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦

Capabilities and related activities that may provide opportunities for Australian industry in Phase 2 include:

ACTIVITIES	CAPABILITIES							
	Avionics	Communication Systems	Electronic Warfare Systems	Propulsion Systems	Simulation Systems	Software Systems	Structures	Training Aids
Assembly / Construction	♦	♦	♦	♦	♦	♦	♦	♦
Configuration Management	♦	♦	♦	♦	♦	♦	♦	♦
Design	♦	♦	♦	♦	♦	♦	♦	♦
Education and Training	♦	♦	♦	♦	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦	♦	♦	♦	♦
Project Management	♦	♦	♦	♦	♦	♦	♦	♦
Refurbishment / Outfitting	♦	♦	♦	♦	♦	♦	♦	♦
Simulation / Modelling	♦	♦	♦	♦	♦	♦	♦	♦
Systems Development	♦	♦	♦	♦	♦	♦	♦	♦
Systems Integration	♦	♦	♦	♦	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦	♦	♦	♦	♦

Acquisition

The industry requirements will be guided by information gained through the preliminary stages/ definition studies of the proposal.

Through-life Support

The industry requirements will be based around developing and maintaining an appropriate level of capability within Australian industry to provide through-life support.

Planned Schedule Highlights

Year-of-Decision	Phase 1 – FY 2008/09 to 2010/11
	Phase 2 – FY 2007/08
In-service Delivery	Phase 1 – 2013 to 2015
	Phase 2 – 2010 to 2012

Estimated Phase Expenditure

Phase 1 – $750m to $1000m

Phase 2 – $250m to $350m

Points of Contact

Phase 1 and 2

Capability Staff:

Squadron Leader Phil Beanland

(02) 6265 1180

Defence Materiel Organisation:

Mr Pieter van Dijk

(02) 6265 1073

Background

Project Air 9000 seeks to provide the ADF with the most appropriate force mix of helicopters. Fundamental to this is a strategic plan for the efficient management of all ADF helicopter fleets, in order to meet operational requirements in a range of roles (airmobile, armed reconnaissance, medium lift, maritime support, anti-submarine, anti-surface warfare, training and support to special forces).

To achieve its aim, Project Air 9000 has been broken down into a number of phases:

- Phase 1 (ongoing) – Continued ADF Helicopter Master Plan Development and Program Management;
- Phase 2 (approved) – Acquisition of Additional Troop-Lift Helicopters (ATH);
- Phase 3 – Seahawk Mid-Life Upgrade and Life Extension;
- Phase 4 (approved) – Black Hawk Mid-Life Upgrade/Replacement;
- Phase 5 – Chinook Mid-Life Upgrade;
- Phase 6 (approved) – Maritime Support Helicopter;
- Phase 7A – Navy Helicopter Training System;
- Phase 7B – Army Helicopter Training System; and
- Phase 8 – Anti-Submarine Warfare/Anti-Surface Warfare Helicopter Capability.

A key part of efficiently managing the ADF's helicopter fleets is the rationalisation of types where this is appropriate, efficient and operationally effective. In 2006 there are 10 helicopter types in or entering ADF service (Kiowa, Iroquois, Black Hawk, Chinook, Tiger, MRH-90, Squirrel, Sea King, Seahawk and Super Seasprite). The Air 9000 Helicopter Strategic Master Plan has identified a way in which as few as four types could effectively perform all roles (training, Armed Reconnaissance Helicopter, medium lift and one multi-role platform with different mission equipments for a variety of roles). Such a reduction in helicopter types has the potential to provide significant efficiencies across personnel, tools, spares, training and facilities. This is not to say four types will necessarily be achieved, but a significant reduction in types is both achievable and desirable over the next five to 15 years.

Project Air 9000 also seeks to encourage investment in Australian industry in order to help build a sustainable aerospace industrial base that can provide high levels of support to the ADF and compete as part of the global supply chain.

Points of Contact

Capability Staff:
Colonel Dave Hayes
(02) 6265 4301

Defence Materiel Organisation:
Brigadier Mark Patch
(02) 6265 7727

Phase Scope

Phase 3 is intended to provide a mid-life upgrade to the Australian Navy's fleet of 16 S-70B-2 Seahawk helicopters addressing aircraft capabilities, through-life support costs, operational availability, commonality and life-of-type issues.

Background

SEA 1405 Phases 1 and 2 are in progress and will provide Electronic Support Measures and a Forward Looking Infra-Red capability to the Seahawks. AIR 9000 Phase 3 will include a range of initial scoping studies to determine capability shortfalls and to identify potential technical upgrade options. This activity will then be followed by a solicitation period with industry ahead of the physical implementation. The upgrade program is likely to include the modification of the S-70B-2 Simulator (formerly Project SEA 1151 Phase 2) and supporting infrastructure, as well as the integration of the MU-90 lightweight torpedo being acquired under JP 2070.

The ADF Helicopter Strategic Master Plan will provide the guidelines to ensure this capability is developed to achieve optimum mission effectiveness with maximum commonality with other aircraft configurations (either within the ADF or with other major fleet operators world-wide).

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES						
	Avionics	Communication Systems	Data Fusion Technologies	Electronic Warfare Systems	Radar Technologies	Sensor Systems	Simulation Systems
Assembly / Construction	♦	♦		♦		♦	♦
Configuration Management	♦	♦		♦		♦	♦
Design							♦
Education and Training	♦	♦		♦			♦
In-Service Support	♦	♦	♦	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦	♦	♦	♦
Project Management	♦	♦	♦	♦	♦	♦	♦
Refurbishment / Outfitting	♦	♦		♦	♦	♦	♦
Simulation / Modelling	♦	♦		♦	♦	♦	♦
Systems Development	♦	♦	♦		♦	♦	♦
Systems Integration	♦	♦	♦	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦	♦	♦	♦

ACTIVITIES	CAPABILITIES						
	Software Systems	Structures	Surveillance & Reconnaissance Systems	Systems Architecture	Training Aids	Underwater Acoustic Technologies	Weapon Systems
Assembly / Construction		♦	♦		♦	♦	♦
Configuration Management	♦	♦		♦	♦	♦	
Design	♦			♦	♦		
Education and Training					♦	♦	♦
In-Service Support	♦	♦	♦	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦	♦	♦	♦
Project Management		♦	♦	♦	♦	♦	♦
Refurbishment / Outfitting		♦	♦		♦	♦	♦
Simulation / Modelling			♦		♦	♦	♦
Systems Development	♦		♦	♦			♦
Systems Integration	♦		♦	♦		♦	♦
Test and Evaluation	♦		♦	♦		♦	♦

Acquisition

It is anticipated that the aircraft will be upgraded with all testing and evaluation being conducted within Australia. Significant components of sensor systems may be sourced from Australian companies or from specialist Original Equipment Manufacturers overseas.

Through-life Support

Deeper level maintenance and other through-life support activities will be provided under contract within Australia.

Planned Schedule Highlights

Year-of-Decision	FY 2008/09 to 2010/11
In-service Delivery	2011 to 2013

Estimated Phase Expenditure

$350m to $450m

Other Unapproved Phases

See also AIR 9000 Phases 5B, 7 and 8.

Points of Contact

Phase 3

Capability Staff:

Lieutenant Commander Timothy Bolitho, RAN
(02) 6265 3779

Defence Materiel Organisation:

Mr Robert Miller
(02) 6265 7466

Phase Scope

Phase 5B is intended to address the modernisation of the Australian Army's fleet of six CH-47D medium lift helicopters.

Background

AIR 9000 Phase 5 aims to address current and future capability deficiencies of the Chinook weapon system. There are two sub phases with the separation of the engine replacement to take advantage of the opportunity to maintain the engines in a standard configuration, for whole-of-life cost savings.

- Phase 5A (approved) will upgrade the engines presently installed on the ADF CH-47D Chinook aircraft. This will reduce operating costs and improve operational performance ahead of the planned Chinook mid-life upgrade; and
- Phase 5B has been split into two stages. Phase 5B.1 aims to upgrade selected elements of the Chinook capability to ensure operational viability until end of service life. A subsequent phase, Phase 5B.2, is intended to provide a substantial upgrade to the Chinook capability to ensure long term cost effectiveness.

Australian Industry Opportunities

Overview

Australian industry opportunities that may relate to this phase reflect the objectives raised in the Aerospace Sector Plan, including the capability areas below. The extent of Australian industry involvement will be determined through preliminary scoping studies and industry consultation.

Capabilities and related activities that may provide opportunities for Australian industry in Phases 5B.1 and 5B.2 include:

ACTIVITIES	CAPABILITIES						
	Avionics	Command & Control Systems	Communication Systems	Data Fusion Technologies	Electronic Warfare Systems	Information & Database Management Systems	Sensor Systems
Assembly / Construction	♦	♦	♦		♦	♦	♦
Configuration Management	♦	♦	♦	♦	♦	♦	♦
Education and Training	♦	♦	♦	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦	♦	♦	♦
Project Management	♦	♦	♦	♦	♦	♦	♦
Refurbishment / Outfitting	♦	♦	♦		♦	♦	♦
Simulation / Modelling	♦	♦	♦	♦	♦	♦	♦
Systems Development	♦	♦	♦	♦	♦	♦	♦
Systems Integration	♦	♦	♦	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦	♦	♦	♦

ACTIVITIES	CAPABILITIES						
	Simulation Systems	Software Systems	Space Based Communication	Structures	Systems Architecture	Training Aids	Weapon Systems
Assembly / Construction	♦	♦	♦	♦	♦	♦	♦
Configuration Management	♦	♦	♦	♦	♦	♦	♦
Design	♦				♦	♦	
Education and Training	♦	♦	♦	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦	♦	♦	♦
Project Management	♦	♦	♦	♦	♦	♦	♦
Refurbishment / Outfitting	♦	♦	♦	♦	♦	♦	♦
Simulation / Modelling	♦	♦	♦	♦	♦	♦	♦
Systems Development	♦	♦	♦	♦	♦	♦	♦
Systems Integration	♦	♦	♦	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦	♦	♦	♦

Acquisition

Phase 5B.1 is intended to upgrade selected elements of the Chinook. It is anticipated that this will be conducted within Australia. Opportunity for Australian industry involvement may exist in areas such as limited design, modification, test and evaluation.

Phase 5B.2 plans have yet to be developed.

Through-life Support

Deep level maintenance and through-life support would be conducted in Australia.

Planned Schedule Highlights

Year-of-Decision	Phase 5B.1 – FY 2008/09 to 2010/11
	Phase 5B.2 – FY 2015/16 to 2017/18
In-service Delivery	Phase 5B.1 – 2010 to 2012
	Phase 5B.2 – 2018 to 2020

Estimated Phase Expenditure

Phase 5B.1 – $75m to $100m

Phase 5B.2 – $250m to $350m

Other Unapproved Phases

See also AIR 9000 Phases 3, 7, 8

Points of Contact

Phase 5B.1 and 5B.2

Capability Staff:

Major Greg McMillan

(02) 6265 2098

Defence Materiel Organisation:

Major Thorbjorn Johansen

(02) 6265 7774

Phase Scope

Phase 7A is intended to provide a rotary wing training capability for Navy to meet the training needs of future ADF rotary wing aircraft.

Phase 7B is intended to provide a rotary wing training capability for Army, which builds on the capability established under Phase 7A.

Background

Phase 7 seeks to provide a helicopter aircrew training system for Navy and Army. There are a broad range of options under consideration which could involve acquisition or lease.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in Phase 7A and Phase 7B include:

ACTIVITIES	CAPABILITIES					
	Simulation Systems	Training Aids	Weapon Systems	Avionics	Communication Systems	Sensor Systems
Assembly / Construction	♦	♦	♦		♦	
Configuration Management	♦	♦	♦		♦	
Design	♦	♦			♦	
Education and Training	♦	♦	♦		♦	
In-Service Support	♦	♦	♦		♦	
Logistical Support	♦	♦	♦	♦	♦	♦
Project Management	♦	♦	♦		♦	
Refurbishment / Outfitting		♦		♦	♦	♦
Simulation / Modelling	♦	♦	♦	♦	♦	♦
Systems Development	♦	♦			♦	
Systems Integration	♦	♦			♦	
Test and Evaluation	♦	♦	♦	♦	♦	♦

Acquisition

This project will see the delivery of a comprehensive training system for ADF rotary wing aircrew, including a suitable platform, matched to the training system and training devices.

Through-life Support

Through-life support for the helicopter aircrew training system will include, but not be limited to, the ongoing operation, maintenance and support of the aircraft and the associated training devices.

Planned Schedule Highlights

Year-of-Decision	Phase 7A – FY 2007/08
	Phase 7B – FY 2013/14 to 2015/16
In-service Delivery	Phase 7A – 2010 to 2012
	Phase 7B – 2017 to 2019

Estimated Phase Expenditure

Phase 7A – $250m to $350m

Phase 7B – $250m to $350m

Points of Contact

Phase 7A

Capability Staff:

Lieutenant Commander Tim Bolitho, RAN

(02) 6265 3779

Defence Materiel Organisation:

Mr Robert Miller

(02) 6265 7466

Phase 7B

Capability Staff:

Lieutenant Colonel Brendan Dwyer

(02) 6265 5519

Defence Materiel Organisation:

Major Thorbjorn Johansen

(02) 6265 7774

Phase Scope

This phase is intended to provide for the replacement of the Navy's combat helicopter capability.

Background

Navy's tactical helicopter fleet (anti-submarine and anti-surface warfare), currently comprising Seahawks and Super Seasprite helicopters, could conceivably be replaced by one new helicopter type, missionised as required for these two roles. In accordance with the Air 9000 construct, one type for these two roles would take a further step towards rationalisation. This phase is in the early stage of development and as such many details are currently in the early stages of analysis and development.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES						
	Avionics	Command & Control Systems	Communication Systems	Data Fusion Technologies	Electronic Warfare Systems	Information & Database Management Systems	Sensor Systems
Assembly / Construction	♦	♦	♦		♦	♦	♦
Configuration Management	♦	♦	♦	♦	♦	♦	♦
Education and Training	♦	♦	♦	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦	♦	♦	♦
Project Management	♦	♦	♦	♦	♦	♦	♦
Refurbishment / Outfitting	♦	♦	♦		♦	♦	♦
Simulation / Modelling	♦	♦	♦	♦	♦	♦	♦
Systems Development	♦	♦	♦	♦	♦	♦	♦
Systems Integration	♦	♦	♦	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦	♦	♦	♦

ACTIVITIES	CAPABILITIES					
	Simulation Systems	Space Based Communication	Structures	Systems Architecture	Training Aids	Weapon Systems
Assembly / Construction	♦	♦	♦	♦	♦	♦
Configuration Management	♦	♦	♦	♦	♦	♦
Design	♦			♦	♦	
Education and Training	♦	♦	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦	♦	♦
Project Management	♦	♦	♦	♦	♦	♦
Refurbishment / Outfitting	♦		♦	♦	♦	♦
Simulation / Modelling	♦	♦	♦	♦	♦	♦
Systems Development	♦	♦	♦	♦	♦	♦
Systems Integration	♦	♦	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦	♦	♦

Acquisition

Yet to be determined.

Through-life Support

Deep level maintenance and through-life support is intended to be conducted in Australia.

Planned Schedule Highlights

Year-of-Decision	FY 2015/16 to 2017/18
In-service Delivery	2017 to 2019

Estimated Phase Expenditure

$2500m to $3500m

Points of Contact

Phase 8

Capability Staff:

Commander James Tobin, RAN
(02) 6265 6435

Defence Materiel Organisation:

Mr Robert Miller
(02) 6265 7466

Phase Scope

Phase 3 is intended to upgrade and augment ADF force level electronic warfare (EW) capabilities.

Background

DEF 224 (Bunyip) is a multi-phased project to upgrade and augment ADF force level EW equipment. The proposal seeks to provide the ADF with an integrated force level signals intelligence and EW capability to support operational and tactical commanders. Technology is undergoing rapid change and to keep pace with this a rolling program of capability acquisition is planned. This capability is important for the protection of deployed ADF units and will support a commander's ability to achieve decision superiority.

The phases of DEF 224 include:

- Phase 2A (approved), which is an interim upgrade and life-of-type extension of existing force level EW sensor equipment to overcome high priority capability deficiencies;
- Phase 2B (approved) is the first major acquisition phase of the proposal. It will provide additional capability and enhancements to support concurrent operations. It is supported by a study phase; and
- Phase 3, which will meet emerging needs with incremental technology enhancements to maintain a credible capability.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES			
	Communication Systems	Electronic Warfare Systems	Software Systems	Surveillance & Reconnaissance Systems
Configuration Management		♦		
Design			♦	
Education and Training	♦		♦	
In-Service Support	♦	♦	♦	♦
Logistical Support	♦		♦	♦
Project Management	♦	♦	♦	♦
Refurbishment / Outfitting		♦		
Simulation / Modelling			♦	
Systems Development		♦	♦	
Systems Integration	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦

Acquisition

It is envisaged that although the overall project will be managed in an integrated manner, there will be a range of sub-system acquisition strategies dependent on existing in-service capabilities, security, complexity, schedule and the individual service factors of each sub-system. Strategies include Government to Government acquisition such as Foreign Military Sales, tenders to industry and internal development with industry support.

Through-life Support

The proposed through-life support concept is to utilise common support arrangements for common systems. However, the majority of the capabilities are electronics and information technology based and support will predominantly be fault repairs and training.

Planned Schedule Highlights

Year-of-Decision	FY 2009/10 to 2011/12
In-service Delivery	2011 to 2013

Estimated Phase Expenditure

$150m to $200m

Points of Contact

Phase 3

Capability Staff:
Mr Adrian Dineen
(02) 6265 5986

Defence Materiel Organisation:
Mr Geoff Cropper
(02) 6265 4215

Phase Scope

Phase 4 is intended to provide for further development and evolution of the Joint Intelligence Support System for the support of the Australian Defence intelligence community. Phase 4 will take greater cognisance of the ADF's migration towards networked operations and the increased demands on the intelligence assets to perform effectively within shorter decision cycles.

Background

DEF 7013 is a multi-phased proposal to acquire a system of shared databases and support applications networked between organisations that have an intelligence role at the strategic, operational and tactical levels of command. The system will allow the rapid acquisition of intelligence data from all sources; the storage, fusion and transformation into value-added intelligence; and transfer that intelligence, in a timely manner, to those commanders and command support systems that require it.

Other phases of DEF 7013 include:

- Phase 1 is complete. This phase delivered the initial network and high priority databases. It also evaluated a number of Government off-the-shelf databases;
- Phase 2 (approved) is largely complete. This phase expands the Joint Intelligence Support System to a fully operational capability with the addition of a mature infrastructure, the development of information repositories, and the evaluation of analytical tools;
- Phase 3A is complete. This phase delivered a deployable capability for the Joint Intelligence Support System; and
- Phase 3B (approved) is in progress. This phase extends the Joint Intelligence Support System to the tactical level, provides a more mature deployable and transportable capability, and further develops the system to support the intelligence community.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES
	Command & Control Systems
In-Service Support	♦
Systems Development	♦
Systems Integration	♦

Acquisition

The acquisition prime contractor will likely be an established Australian entity with experience and expertise in the field of knowledge exploitation. The selected prime contractor may enter into relationships with other companies, local or international, who can provide relevant solutions or expertise.

Through-life Support

Selected vendors will be required to commit to the ongoing support and enhancement of what will be the key element of the future Defence Intelligence Information Environment.

Planned Schedule Highlights

Year-of-Decision	FY 2008/09 to 2010/11
In-service Delivery	2010 to 2012

Estimated Phase Expenditure

$30m to $50m

Points of Contact

Phase 4

Capability Staff:

Commander Katja Flaherty, RAN
(02) 6265 3489

Defence Materiel Organisation:

Ms Leanne Purcell
(02) 6265 5635

Phase Scope

This phase is intended to address a shortfall in ADF air defence targets by introducing a new air target system, to support operational training and test and evaluation (T&E).

Background

Current ADF air target capabilities have limited capacity to meet the ADF's evolving training and T&E needs. This project initially aims to conduct an ADF-wide aerial target requirements definition study to determine the future aerial target requirements for the ADF and to replace the current ADF target capabilities with a new system that ensures that air targets are representative of the forecast threat and can perform the profiles required to provide realistic and effective operational training or T&E.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES				
	Communication Systems	Electronic Warfare Systems	Propulsion Systems	Radar Technologies	Structures
Assembly / Construction	♦	♦	♦		♦
Education and Training	♦	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦	♦
Project Management	♦	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦	♦

Planned Schedule Highlights

Year-of-Decision	FY 2008/09 to 2010/11
In-service Delivery	2009 to 2011

Estimated Phase Expenditure

$20m to $30m

Point of Contact

Phase 1

Capability Staff:
Squadron Leader David Riddel
(02) 6265 3475

Defence Materiel Organisation:
Mr Rod Warner
(02) 6266 7668

Phase Scope

This phase is intended to enable acquisition of the next generation combat identification system for ADF aircraft, ships and ground-based systems.

Background

The ADF needs a means by which sea-borne platforms, air-borne platforms, and ground based units with an air defence capability can co-operatively identify themselves to each other and to units of allied and coalition forces to prevent fratricide or 'blue on blue' engagements.

The capability is currently provided by the Mode 4 Mark XII Identification, Friend or Foe (IFF) system. The ADF will examine options under this project for the extent to which the current IFF system needs to be updated to reflect allied identification system changes.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES		
	Avionics	Communication Systems	Data Fusion Technologies
Structures	♦	♦	♦
Systems Architecture	♦	♦	♦
Installation Design & Integration	♦	♦	♦
Prototype Installation	♦	♦	♦
Equipment Manufacture (combat identification displays & control boxes)	♦	♦	♦
Production Installation	♦	♦	♦

Acquisition

It is expected that industry will be required to focus on aspects that include:

- participation in and contribution to Project Development Studies (PDS) conducted by subject matter experts within Australian industry;
- design and development of any relevant support systems; and
- development and integration of combat identification systems into ADF aircraft, ships and ground based units.

Through-life Support

Full through-life support is needed and more specific requirements will be determined by the PDS for each type of equipment identified. Specific support arrangement will be assessed on a case-by-case basis as purchasing occurs.

Planned Schedule Highlights

Year-of-Decision	FY 2010/11 to 2012/13
In-service Delivery	2013 to 2015

Estimated Phase Expenditure

$150m to $200m

Points of Contact

Phase 1

Capability Staff:

Wing Commander Peter Davies
(02) 6265 5561

Defence Materiel Organisation:

Squadron Leader Anthony Shaw
(02) 6266 4602

Phase Scope

This phase will acquire equipment to improve the ADF capability to deliver support to forces on operations.

Background

JP 126 will address a number of deficiencies in the ADF's ability to conduct logistics operations. Operations in Bougainville and East Timor have reinforced these capability deficiencies, particularly management information systems, physical delivery platforms and handling equipment at interfaces, nodes and terminals.

The proposal comprises three phases:

- Phase 0 was the preliminary phase which set the proposal context and confirmed the scope and conceptual requirements of the joint theatre distribution system. Phase 0 was completed in mid-2001;
- Phase 1 (completed) was a three year Project Definition Study. A detailed and comprehensive series of studies of theatre distribution systems, processes and assets was conducted to identify cost and capability options and to reduce project risks; and
- Phase 2 is the acquisition and implementation phase.

This phase has received first pass approval from Government.

Australian Industry Opportunities

Overview

Australian companies will have the opportunity to compete for integration, training and through-life support work for Rough Terrain Container Handlers, Container Side Loaders, Small Load Units, Container Roll Out Platforms, Forklifts, Cranes and Beachmaster Shelters.

Australian industry will have the opportunity to compete for the design and construction of the Material Handling Equipment Container Handler Movement System (MHE-CHMS).

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES							
	Cranes	Rough Terrain Container Handlers	Container Side Loaders	MHE	MHE – CHMS	Container Roll Out Platforms	Small Load Units	Beach Master Shelters
Assembly / Construction					♦			
Design					♦			
Education and Training	♦	♦	♦	♦	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦	♦	♦	♦	♦
Refurbishment / Outfitting	♦	♦	♦	♦	♦	♦	♦	♦
Systems Integration								♦

Acquisition

Australian industry has the ability to provide solutions for equipment items and to compete for integration, training and through-life support activities. Areas on which requirements is likely to focus include conceptual and preliminary design of distribution systems and the design and development of delivery platforms, terminal processes and equipment, and logistic management information.

Through-life Support

Industry requirements are likely to be based around developing and maintaining sufficient capability within Australian industry to undertake a range of through-life maintenance and support activities, either as an agent or sub contractor with Original Equipment Manufacturer.

Planned Schedule Highlights

Year-of-Decision	FY 2006/07
In-service Delivery	2008 to 2010

Estimated Phase Expenditure

$100m to $150m

Points of Contact

Phase 2

Capability Staff:
Major Jacqueline Kopievsky
(02) 6265 4934

Defence Materiel Organisation:
Mr Roger Hyde
(03) 9282 4423

Phase Scope

This phase is intended to provide enhancements to the ADF Tactical Unmanned Aerial Vehicle capability.

Background

JP 129 Phase 2 (approved) is providing Tactical Unmanned Aerial Vehicles to support land forces on Operations. These systems will be in service in 2009 and have a planned life-of-type of 2020. This seemingly short life is due to the technological advancements that are being made to Unmanned Aerial Systems (UAS) and sensor payloads.

JP 129 Phase 3 has been developed to ensure that the ADF is positioned to take advantage of the technological advancements being made in UAS and sensors payloads, either through upgrading of the Phase 2 capability, or replacement with more advanced capability, taking into account the technological advances, the findings of the UAS Roadmap to be published in 2006 and the changing requirements of the future.

Australian Industry Opportunities

Yet to be determined.

Planned Schedule Highlights

Year-of-Decision	FY 2015/16 to 2017/18
In-service Delivery	2019 to 2021

Estimated Phase Expenditure

$200m to $250m

Points of Contact

Phase 3

Capability Staff:

Major Marty Power
(02) 6265 5119

Phase Scope

This phase is intended to facilitate the process of direction, collection, processing and dissemination of environmental data to provide a comprehensive and thorough understanding of the physical operating environment and its likely impact on military operations.

Background

Knowledge of the environment is a critical factor in the conduct of successful joint military operations. The ADF therefore has a keen interest in improving its capabilities to collect, analyse and disseminate geospatial information in a timely and coordinated manner. Rapid Environmental Assessment will allow relevant geospatial and environmental information relating to a particular area of military operations to be collected, processed and disseminated to military planners, decision makers and operational forces in a coordinated, systematic and timely manner. This geospatial and environmental information includes hydrographic, topographic, oceanographic and atmospheric data and may be sourced from both archived data and data collected in real-time. The provision of reliable and relevant geospatial and environmental data is a key enabler in gaining comprehensive situational awareness and decision superiority in the battle-space environment, because it allows the effectiveness of platforms, weapons systems and sensors to be optimised.

The Rapid Environmental Assessment capability improvements resulting from Project JP 1770 aims to improve collection systems and sensors, and develop enhanced information management and dissemination systems within the ADF and ADO.

Australian Industry Opportunities

Yet to be determined.

Planned Schedule Highlights

Year-of-Decision	FY 2008/09 to 2010/11
In-service Delivery	2010 to 2012

Estimated Phase Expenditure

$30m to $50m

Points of Contact

Phase 1

Capability Staff:

Commander Tony Withers, RAN
(02) 6265 6467; and
Lieutenant Andrew Shiels, RAN
(02) 6265 1119

Phase Scope

Phase 3F is intended to upgrade the existing terrestrial infrastructure to improve the operational performance of the ADF satellite network. The two major initiatives being considered are a second Satellite Ground Station and advanced satellite communications modems.

Phase 4 is intended to implement the next generation ADF Satellite Communications architecture and is intended to cover both the space and ground segments.

Background

JP 2008 is a multi-phased proposal to provide strategic and tactical satellite communications capabilities to support ADF operations, wherever they are conducted.

Other phases of JP 2008 include:

- Phase 1 is complete. This phase comprised studies undertaken in support of the development of a mobile satellite communications capability;
- Phase 2 (approved) is in progress. This phase is acquiring a satellite communications capability for mobile assets;
- Phase 3A is complete. This phase was a study into the feasibility of options for a suitable interim satellite communications system to meet ADF requirements;
- Phase 3C (approved) is in progress. This phase develops a Theatre Broadcast System concept and technology demonstrator for high, medium and low data rate satellite broadcast capabilities;
- Phase 3D (approved) is largely complete. This phase delivered a Defence satellite communications capability on the SingTel/Optus C1 satellite and the associated ground control infrastructure; and
- Phase 3E (approved) is in progress. This phase will provide the terrestrial infrastructure to utilise the satellite communications capabilities of the Defence payload on the SingTel/Optus C1 satellite.

Phase 3F has received first pass approval from Government.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in Phase 3F include:

ACTIVITIES	CAPABILITIES	
	Communication Systems (specifically scope to terrestrial communication system infrastructure)	Software Systems
Assembly / Construction	♦	♦
Configuration Management	♦	♦
Design	♦	♦
Education and Training	♦	♦
In-Service Support	♦	♦
Logistical Support	♦	♦
Project Management	♦	♦
Refurbishment / Outfitting	♦	

ACTIVITIES	CAPABILITIES	
	Communication Systems (specifically scope to terrestrial communication system infrastructure)	Software Systems
Systems Development	♦	♦
Systems Integration	♦	♦
Test and Evaluation	♦	♦

Capabilities and related activities that may provide opportunities for Australian industry in Phase 4 include:

ACTIVITIES	CAPABILITIES	
	Communication Systems	Space Based Communication
Assembly / Construction	♦	♦
Configuration Management	♦	♦
Design	♦	♦
Education and Training	♦	♦
In-Service Support	♦	♦
Logistical Support	♦	♦
Project Management	♦	♦
Refurbishment / Outfitting	♦	♦
Simulation / Modelling	♦	♦
Systems Development	♦	♦
Systems Integration	♦	♦
Test and Evaluation	♦	♦
Spectrum Coordination	♦	♦

Acquisition

Under Phase 3F it is planned to acquire the ground station through tender. Defence will investigate the range of modem options before moving to acquisition.

Under Phase 4 the industry requirements will be defined by the studies conducted as part of the requirements definition phase. The studies will investigate the technical and acquisition options for providing the next generation of satellite communications for the ADF.

Through-life Support

The industry requirements will be based around developing and maintaining sufficient capability within Australian industry to undertake a range of through-life maintenance and support activities.

Planned Schedule Highlights

Year-of-Decision	Phase 3F – FY 2007/08
	Phase 4 – FY 2009/10 to 2011/12
In-service Delivery	Phase 3F – 2009 to 2011
	Phase 4 – 2013 to 2015

Estimated Phase Expenditure

Phase 3F – $50m to $75m

Phase 4 – $1000m to $1500m

Points of Contact

Phase 3F

Capability Staff:

Lieutenant Colonel Kath Toohey

(02) 6265 6502

Defence Materiel Organisation:

Ms Kylie Swan

(02) 6266 7555

Phase 4

Capability Staff:

Lieutenant Colonel Kath Toohey

(02) 6265 6502

Defence Materiel Organisation:

Mr Greg McKinnon

(02) 6265 4155

Phase Scope

Phase 8 is intended to build upon the capability delivered under previous phases of JP 2030, and in particular extend the functionality through the development of applications that support the planning and conduct of ADF networked operations.

Phase 9 is intended to further establish the framework for the Joint Command Support Environment that will continue to consolidate existing Command Support Systems into a single integrated environment linking all elements of the ADF.

Background

The Joint Command Support Environment 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 System, and the Battlefield Command Support System (part of Project LAND 75).

Other phases of JP 2030 include:

- Phases 1-6 are complete. These phases 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; and
- Phase 7 (approved) is in progress. This phase covers further rollout and enhancement of the Joint and Air Command Support Systems.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in Phases 8 and 9 include:

ACTIVITIES	CAPABILITIES	
	Command & Control Systems	Systems Architecture
Assembly / Construction	♦	
Configuration Management	♦	♦
Design	♦	
Education and Training	♦	
In-Service Support	♦	
Logistical Support	♦	
Project Management	♦	
Systems Development	♦	
Systems Integration	♦	♦
Test and Evaluation	♦	

Although many of the required products will be commercial and military off-the-shelf items, existing and some new supplier capability will be required for system integration, limited bespoke software development, integrated logistics support development and transition into service.

Through-life Support

Under existing and new arrangements, a long-term local support capability will be required.

Planned Schedule Highlights

Year-of-Decision	Phase 8 – FY 2006/07
	Phase 9 – FY 2012/13 to 2014/15
In-service Delivery	Phase 8 – 2007 to 2009
	Phase 9 – 2014 to 2016

Estimated Phase Expenditure

Phase 8 – $250m to $350m

Phase 9 – $100m to $150m

Points of Contact

Phase 8 and 9

Capability Staff:

Lieutenant Colonel Rob Gunn

(02) 6265 4086

Defence Materiel Organisation:

Mr Terry Oldfield

(02) 6265 7726

Phase Scope

Phase 3 is intended to upgrade or replace Defence's space-based surveillance capability, as necessary, to maintain relevancy, effectiveness and efficiency with rapidly changing technologies and related opportunities. This phase has been split into two sub-phases to allow an appropriately staged acquisition and update program.

Background

JP 2044 is a multi-phased proposal to develop a Defence space-based surveillance capability.

Other phases of JP 2044 include:

- Phase 2A is complete. This phase delivered system updates and conducted risk reduction activities in preparation for the main acquisition phase; and
- Phase 2B (approved) is in progress. This phase is the major acquisition of information technology, communications and training infrastructure to support a space-based surveillance capability.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in Phases 3A and 3B include:

ACTIVITIES	CAPABILITIES
	Information & Database Management Systems
In-Service Support	♦

Acquisition

The security classification of the system provided under JP 2044 precludes the ability to engage Australian industry in the upgrade or replacement of equipment. Potential may exist to engage Australian industry for in-service support.

Through-life Support

Ability to engage Australian industry for through-life support will be limited by the system classification.

Planned Schedule Highlights

Year-of-Decision	Phase 3A – FY 2007/08
	Phase 3B – FY 2010/11 to 2012/13
In-service Delivery	Phase 3A – 2010 to 2012
	Phase 3B – 2012 to 2014

Estimated Phase Expenditure

Phase 3A – $50m to $75m
Phase 3B – $50m to $75m

Points of Contact

Phase 3A and 3B

Capability Staff:
Lieutenant Colonel Kevin Rosenbaum
(02) 6265 3897

Defence Materiel Organisation:
Ms Leanne Purcell
(02) 6265 5635

Phase Scope

Phase 3 is intended to further upgrade the Defence Wide Area Communications Network through equipment upgrade and/or technology enhancements for improved network performance and network management. This phase aims to provide a modern, integrated multimedia transmission and switching capability to Defence.

Background

JP 2047 is a multi-phased proposal to maintain and improve the Defence networked communications infrastructure.

Other phases of JP 2047 include:

- Phase 0 is complete. This phase encompassed a Project Definition Study, and a network security and survivability study, to provide input to the capability requirements for later phases;
- Phase 1A (approved) is largely complete. This phase modernises telecommunications switching at selected Defence sites. This provides a scalable broadband backbone network, upgraded encryption systems in the SECRET domain, and upgraded management tools to support the enhanced network;
- Phase 2A (approved) is in progress. This phase is a consolidation stage that strengthens enhancements made in Phase 1A, implements virtual private networking, strengthens the policy framework of the network environment, and provides enhanced encryption services on both the RESTRICTED and SECRET domains; and
- Phases 2B and 2C have been amalgamated into Phase 3.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in Phase 3 include:

ACTIVITIES	CAPABILITIES			
	Communication Systems	Information Technology Systems	Software Systems	Systems Architecture
Configuration Management	♦	♦	♦	♦
Design	♦	♦	♦	♦
In-Service Support	♦	♦		
Systems Development	♦	♦		♦
Systems Integration			♦	
Test and Evaluation	♦	♦	♦	

Acquisition

Although the industry requirements are yet to be fully developed, the areas in which requirements are expected to focus include:

- systems design, development and integration of both software and hardware in order to enhance Australia's operational capability and future developments in communications technology; and
- network security enhancements.

Through-life Support

Industry requirements will be based around developing and maintaining sufficient capability within Australian industry to undertake a full range of through-life maintenance and support activities. Through-life support activities will likely be undertaken within the existing ANZ-based telecommunications sector.

Planned Schedule Highlights

Year-of-Decision	FY 2010/11 to 2012/13
In-service Delivery	2012 to 2014

Estimated Phase Expenditure

$250m to $350m

Points of Contact

Phase 3

Capability Staff:

Commander Ian McConachie, RAN
(02) 6265 1316

Chief Information Officer Group:

Mr Claude D'Abrera
(02) 6265 8103

Phase Scope

Phase 3 is intended to replace the existing ADF landing craft capability inherent in Navy Heavy Landing Craft (LCH) and Army Medium Landing Craft (LCM-8) and Landing Platform Amphibious (LPA) Watercraft, as part of the Amphibious Deployment and Sustainment (ADAS) system.

Phases 4A and 4B are intended to provide an increased ADAS capability including two amphibious ships to replace HMAS Tobruk and one Amphibious Transport (LPA). These phases have now been combined as Phase 4A/4B. This phase will provide the ADF with increased amphibious deployment and sustainment capability to support an enhanced deployed force.

Phase 4C is intended to acquire a strategic lift ship capability to provide the ADF with the means to conduct strategic sealift in support of a deployed force.

Background

JP 2048 aims to provide the ADF with increased amphibious deployment and sustainment capability to support a land force.

JP 2048 comprises multiple phases:

- Phase 1A is in progress and is acquiring a watercraft system to be used in conjunction with the LPAs – HMAS Kanimbla and HMAS Manoora;
- Phase 2 (approved) is a Project Definition Study to identify options for replacing the current Australian Defence Force (ADF) amphibious transport capability and the current afloat support capability under Project SEA 1654 Phases 2 and 3;
- Phase 3 is designed to provide the ADAS capability with a new breed of amphibious watercraft that will integrate with the platform chosen in Phase 4A/4B and be able to transport personnel and equipment from large amphibious ships to shore without utilising fixed port facilities, or prepared landing areas. This will provide a significant lift capability and further enhance the flexibility of the ADAS. These new watercraft will replace the existing capability inherent in the current generation of LCM-8, LCH watercraft, and the LPA watercraft;
- Phase 4A/4B is intended to procure two new class amphibious ships to replace the Heavy Landing Ship (LSH) HMAS Tobruk when it reaches the end of its service life and one of the Amphibious Transports (LPA). The amphibious ships are expected to have a significant aviation and organic watercraft capability to support effective discharge and support of land forces. This will include multiple helicopter landing spots per ship in addition to a floodable well deck facility and a significant command and control capability; and
- Phase 4C will see the second LPA replaced with a strategic sealift capability. This capability will enable the ADF to transport bulk equipment, supplies and forces into a theatre of operations and provide significant ongoing support to deployed forces. Strategic sea lift is complementary to amphibious operations.

Phase 4A/4B has received first pass approval from Government.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in Phase 3 include:

ACTIVITIES	CAPABILITIES				
	Communication Systems	Propulsion Systems	Simulation Systems	Structures	Training Aids
Assembly / Construction	♦		♦	♦	♦
Configuration Management	♦	♦	♦	♦	♦
Design			♦		♦
Education and Training	♦	♦	♦		♦
In-Service Support	♦	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦	♦
Project Management	♦	♦	♦	♦	♦
Refurbishment / Outfitting	♦		♦	♦	♦
Simulation / Modelling			♦		♦
Systems Development			♦		♦
Systems Integration	♦	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦	♦

Capabilities and related activities that may provide opportunities for Australian industry in Phase 4A/4B include:

ACTIVITIES	CAPABILITIES											
	Command & Control Systems	Communication Systems	Electronic Warfare Systems	Propulsion Systems	Radar Technologies	Sensor Systems	Simulation Systems	Software Systems	Structures	Systems Architecture	Training Aids	Weapon Systems
Assembly / Construction	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
Configuration Management	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
Design	♦	♦			♦		♦	♦			♦	
Education and Training	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
Project Management	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
Refurbishment / Outfitting	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
Simulation / Modelling	♦	♦	♦		♦	♦	♦	♦	♦	♦	♦	
Systems Development		♦			♦		♦	♦			♦	
Systems Integration	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦

Capabilities and related activities that may provide opportunities for Australian industry in Phase 4C include:

ACTIVITIES	CAPABILITIES				
	Communication Systems	Propulsion Systems	Radar Technologies	Structures	Training Aids
Assembly / Construction	♦	♦	♦	♦	♦
Configuration Management	♦	♦	♦	♦	♦
Design	♦		♦		♦
Education and Training	♦	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦	♦
Project Management	♦	♦	♦	♦	♦
Refurbishment / Outfitting	♦	♦	♦	♦	♦
Simulation / Modelling	♦		♦		♦
Systems Development	♦		♦	♦	♦
Systems Integration	♦	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦	♦

Planned Schedule Highlights

Year-of-Decision	Phase 3 – FY 2009/10 to 2011/12
	Phases 4A/4B – FY 2006/07
	Phase 4C – FY 2013/14 to 2015/16
In-service Delivery	Phase 3 – 2012 to 2014
	Phase 4A/4B – 2012 to 2014
	Phase 4C – 2016 to 2018

Estimated Phase Expenditure

Phase 3 – $150m to $200m
Phase 4A/4B – $1500m to $2000m
Phase 4C – $150m to $200m

Points of Contact

Phase 3, 4A/4B, 4C

Capability Staff:
Captain Stephen Woodall, RAN
(02) 6265 5114

Defence Materiel Organisation:
Mr Kim Gillis
(02) 6265 3316

Phase Scope

JP 2060 Phase 3 is intended to improve the existing ADF deployable health capability to deliver optimum quality services for the prevention, treatment and evacuation of casualties. It intends to achieve this through the adoption of a 'whole of system' approach to the delivery of health support, addressing each of the following five Health Operating Systems:

- preventive health;
- treatment;
- medical evacuation;
- health information systems (command, control, communications, intelligence and information management systems); and
- health services logistics.

Background

JP 2060 is comprised of five distinct elements:

- Phase 0, completed in 2001, was the preliminary phase;
- Phase 1, completed in 2003, was a Project Definition Study;
- Phase 2A (approved), involves the early acquisition of Portable Ultrasound systems and Intermediate Fidelity Mannequin systems;
- Phase 2B (approved) addresses treatment aspects, surface and air evacuation, disease and injury prevention, facilities and equipment, staff competencies, health information management, and deployment flexibility; and
- Phase 3 will continue to acquire new health technologies/systems and replace components of the deployable health capability as necessary.

Australian Industry Opportunities

Overview

The opportunities for Australian industry in Phase 3 are yet to be determined. It is anticipated that local industry involvement may include the supply and ongoing logistic support of equipment and services associated with the five Health Operating Systems. These opportunities will become apparent after first pass approval for Phase 3.

Through-life Support

Australian industry opportunities will be based around developing and maintaining sufficient capability within Australian industry to undertake a full range of through-life maintenance and support activities.

Planned Schedule Highlights

Year-of-Decision	FY 2011/12 to 2013/14
In-service Delivery	2014 to 2016

Estimated Phase Expenditure

$250m to $350m

Points of Contact

Phase 3

Capability Staff:

Major John Salter
(02) 6265 2815

Defence Materiel Organisation:

Mrs Anne Ramsay
(03) 9282 6307

Phase Scope

Phase 3 is intended to provide improved geospatial information databases and applications to benefit operational planners and the conduct of operations.

Background

JP 2064 is a multi-phased proposal to develop a geospatial information infrastructure and services capability that provides Defence clients with on-line access to geospatial information, geospatial information resource discovery mechanisms and geospatial services (i.e. tailored responses to customer requests for information). Simply expressed, JP 2064 'will provide users with ready visibility of, and access to, geospatial information'.

The proposal covers all aspects of production, storage, dissemination and service provision. The proposal will implement solutions in all security domains and across a range of communication systems to support users in fixed and deployed locations. Access to data via this mechanism will become the principal means by which command support systems and other systems obtain the geospatial information that they require.

Other phases of JP 2064 include:

- Phase 1 is complete. This phase has enhanced the geospatial production capability; and
- Phase 2 (approved) is in progress. This phase will provide Defence information systems network users with a single coherent picture of the total range of authorised trusted geospatial information products, and provide simple and easy web-enabled access to such products.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES			
	Data Fusion Technologies	Information & Database Management Systems	Software Systems	Systems Architecture
Assembly / Construction	♦	♦	♦	♦
Configuration Management	♦	♦	♦	♦
Design	♦	♦	♦	♦
Education and Training	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦
Project Management	♦	♦	♦	♦
Refurbishment / Outfitting	♦	♦	♦	♦
Systems Development	♦	♦	♦	♦
Systems Integration	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦

Planned Schedule Highlights

Year-of-Decision	FY 2009/10 to 2011/12
In-service Delivery	2011 to 2013

Estimated Phase Expenditure

$250m to $350m

Points of Contact

Phase 3

Capability Staff:

Lieutenant Colonel Kevin Rosenbaum
(02) 6265 3897

Defence Materiel Organisation:

Ms Leanne Purcell
(02) 6265 5635

Phase Scope

Phase 2 is intended to upgrade the Australian Integrated Broadcast System (IBS) to maintain compatibility with allies. It will also introduce new system capabilities, extend the ADF roll-out of the system and build upon infrastructure developed during Phase 1.

Phase 3 aims to further develop the capability of the existing Australian system and extend IBS capabilities to additional users.

Background

JP 2065 Phase 1 delivered the IBS to the ADF. This system manages and disseminates directly to deployed forces the tactically significant information produced by Australian and allied intelligence, surveillance, reconnaissance, and 'Blue Force' tracking systems. The Australian IBS vision includes an information management centre that manages and bridges information between computer networks and satellite components with suitable gateways to real-time tactical data links. This capability forms an important component of Defence's Tactical Information Exchange Environment and allied interoperability.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in Phase 2 include:

ACTIVITIES	CAPABILITIES		
	Communication Systems	Information & Database Management Systems	Space Based Communication
Education and Training	♦	♦	♦
In-Service Support	♦	♦	
Logistical Support	♦	♦	♦
Project Management	♦	♦	♦
Refurbishment / Outfitting	♦	♦	♦

Capabilities and related activities that may provide opportunities for Australian industry in Phase 3 include:

ACTIVITIES	CAPABILITIES		
	Communication Systems	Information & Database Management Systems	Space Based Communication
Education and Training	♦	♦	♦
In-Service Support	♦	♦	♦
Logistical Support	♦	♦	♦
Project Management	♦	♦	♦
Refurbishment / Outfitting	♦	♦	♦

Planned Schedule Highlights

Year-of-Decision	Phase 2 – FY 2008/09 to 2010/11
	Phase 3 – FY 2010/11 to 2012/13
In-service Delivery	Phase 2 – 2009 to 2011
	Phase 3 – 2011 to 2013

Estimated Phase Expenditure

Phase 2 – $30m to $50m

Phase 3 – Less than $20m

Points of Contact

Phase 2 and 3

Capability Staff:

Commander Katja Flaherty, RAN

(02) 6265 3489

Defence Materiel Organisation:

Mr David Cochrane

(02) 6265 5774

Phase Scope

Phase 2B is intended to reduce the vulnerability of Defence's information systems through the provision of advanced Computer Network Defence (CND) hardware and software including a support facility to conduct ongoing development and maintenance.

Background

JP 2068 is a multi-phased proposal to progressively develop a survivable Defence Network Operation Centre capability, which will enable Defence to more effectively manage, monitor and secure its major communications networks and information systems. Phases of JP 2068 include:

- Phase 1A (approved) will provide a Network Operations Centre facility at HMAS Harman in Canberra. This work will be conducted through Infrastructure Division;
- Phase 1B (approved) trials a Defence Science and Technology Organisation-developed CND pilot system on the Defence Restricted Network. Outcomes of this trial will be used to assess the need and functional requirements for a mature CND facility in JP 2068 Phase 2;
- Phase 2A was intended to provide an Enterprise Management System and improved business processes. This capability is being delivered through other means and the project has been removed from the DCP.
- Phase 2B will further enhance the capabilities provided in Phase 1 by improving the management, monitoring, security and visibility of the Defence Information Environment. Phase 2B will adopt CND techniques, including the conduct of studies for deployment of tools and techniques to protect Defence's core information systems against intrusions. It may include an enhancement of the current network management facilities at HMAS Harman to facilitate co-location and integration of Network and Security Operations functions.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES		
	Communications/ Information Technology Hardware Systems	Systems Architecture	Software Systems
Configuration Management	♦	♦	♦
Design	♦	♦	♦
In-Service Support	♦		♦
Systems Development	♦	♦	♦
Systems Integration	♦		♦
Test and Evaluation	♦		♦

Acquisition

The areas on which industry requirements are expected to focus include systems design, development and integration of both software and hardware in order to enhance Australia's CND capability and associated future developments.

Through-life Support

Industry requirements will be based around developing and maintaining sufficient capability within Australian industry to undertake a full range of through-life maintenance and support activities. Through-life support activities will likely be undertaken within the existing ANZ-based information technology sector.

Planned Schedule Highlights

Year-of-Decision	FY 2005/06
In-service Delivery	2006 to 2008

Estimated Phase Expenditure

$30m to $50m

Points of Contact

Phase 2B

Capability Staff:

Ms Tina Ormsby
(02) 6265 1212

Chief Information Officer Group:

Mr Claude D'Abrera
(02) 6265 8103

JP 2069

Phase 1B	High Grade Cryptographic Equipment – Secure Telephony
Phase 2	High Grade Cryptographic Equipment
Phase 3	High Grade Cryptographic Equipment

Phase Scope

Phase 1B is the initial acquisition phase and is intended to acquire the next generation of Secure Telephony.

Phases 2 and 3 are follow-on acquisition phases to partially replace the existing ADF fleets of High Grade Cryptographic Equipment as they reach their end of life.

These phases are intended to provide Defence with a cost effective High Grade Cryptographic Equipment capability beyond 2015. The proposal also includes management of the new fleet and associated cryptographic keys.

Background

JP 2069 is a multi-phased proposal to acquire replacement High Grade Cryptographic Equipment for the ADF. High Grade Cryptographic Equipment is used when there is a requirement to protect nationally classified information during electronic transmission. The proposal aims to modernise the ADF's fleet of High Grade Cryptographic Equipment to avoid obsolescence, take advantage of technology advancements and maintain interoperability with allies.

Other phases of JP 2069 include:

- Phase 1A (approved) is largely complete. This phase is a Project Definition Study that will define the strategy and scope of the later phases of JP 2069.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in Phases 1B, 2 and 3 include:

ACTIVITIES	CAPABILITIES			
	Communication Systems	Information Security	Information Technology Systems	High Grade Cryptographic Equipment
Design		♦	♦	
In-Service Support	♦		♦	♦
Logistical Support	♦			
Systems Development		♦	♦	
Systems Integration	♦	♦	♦	
Test and Evaluation			♦	

Acquisition

Although the industry requirements are yet to be fully developed, the areas on which requirements are expected to focus include:

- participation in, and contribution to, the conduct of Project Development Studies by subject matter experts within Australian industry. This is already occurring as part of Phase 1A;
- possible design and development of niche cryptographic equipment and systems; and
- development and integration of communication and information systems.

Through-life Support

Full through-life support is needed and more specific requirements will be determined by the Project Definition Study for each type of equipment identified. Specific support arrangements will be assessed on a case by case basis as purchasing occurs.

Planned Schedule Highlights

Year-of-Decision	Phase 1B – FY 2005/06
	Phase 2 – FY 2009/10 to 2011/12
	Phase 3 – FY 2015/16 to 2017/18
In-service Delivery	Phase 1B – 2006 to 2008
	Phase 2 – 2011 to 2013
	Phase 3 – 2019 to 2021

Estimated Phase Expenditure

Phase 1B – Less than $20m
Phase 2 – $20m to $30m
Phase 3 – $50m to $75m

Points of Contact

Phases 1B, 2 and 3

Capability Staff:
Commander Ian McConachie, RAN
(02) 6265 1316

Defence Materiel Organisation:
Mr Steve McGrath
(02) 6266 1873

Phase Scope

Phase 2 will continue the rollout of modern communications infrastructure to high readiness land formations and units of the ADF. This phase aims to replace ageing analogue combat radios, trunk radios and switching infrastructure in the land environment. It will also provide the capability 'bricks' to achieve the ADF's Network Centric Warfare (NCW) milestone of the Networked Brigade.

Phases 3 and 4 will continue the expansion of enhanced communications to support joint operations. These phases are intended to fully equip a second brigade and its supporting elements, as well as other high readiness units, and progressively equip the remaining elements of the Land forces. Equipment acquired in earlier phases may also be refreshed during Phases 3 and 4.

Background

JP 2072 is a multi-phased proposal to progressively define and acquire an integrated Battlespace Communications System for the ADF's land elements.

Other phases of JP 2072 include:

- Phase 1 (approved) is in progress. This phase includes two elements: system design and initial acquisition. A Prime Systems Integrator contract was awarded to General Dynamics Canada in late 2005. An initial systems design for the overall Battlespace Communications System will be developed to inform later phases. This phase will also acquire equipment to address urgent shortfalls, as well as enhance some existing communications systems within the Land environment. This phase will assist in the achievement of the ADF's NCW milestone of the Interim Land Combat Force.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in Phases 2, 3 and 4 include:

ACTIVITIES	CAPABILITIES
	Command & Control Systems
Configuration Management	♦
Education and Training	♦
In-Service Support	♦
Logistical Support	♦
Refurbishment / Outfitting	♦
Systems Integration	♦

Acquisition

Although most equipment is likely to be procured from overseas sources, there is scope to acquire equipment from Australian industry. The primary equipment is expected to be commercial or military off-the-shelf products that will be integrated into both new and legacy platforms and assemblages.

Through-life Support

The industry requirements will be based around developing and maintaining sufficient capability within Australian industry to undertake a full range of through-life maintenance and support activities. The Prime Systems Integrator is likely to establish through-life support sub-contracts.

Planned Schedule Highlights

Year-of-Decision	Phase 2 – FY 2007/08
	Phase 3 – FY 2009/10 to 2011/12
	Phase 4 – FY 2015/16 to 2017/18
In-service Delivery	Phase 2 – 2008 to 2010
	Phase 3 – 2011 to 2013
	Phase 4 – 2019 to 2021

Estimated Phase Expenditure

Phase 2 – $450m to $600m
Phase 3 – $200m to $250m
Phase 4 – $200m to $250m

Points of Contact

Phases 2, 3 and 4

Capability Staff:
Lieutenant Colonel Kath Toohey
(02) 6265 6502

Defence Materiel Organisation:
Mr Grahame McKinnon
(02) 6265 4188

Phase Scope

This phase is intended to introduce equipment that will allow for the creation, testing and dissemination of computer, audio, audio-video and paper-based Psychological Operations products.

Background

This phase involves the acquisition of deployable Psychological Operations production and dissemination equipment that would allow for the creation, testing and dissemination of computer, audio, audio-video and paper-based Psychological Operations support for deployed operations.

Australian Industry Opportunities

Yet to be determined.

Planned Schedule Highlights

Year-of-Decision	FY 2015/16 to 2017/18
In-service Delivery	2018 to 2020

Estimated Phase Expenditure

$30m to $50m

Points of Contact

Phase 1

Capability Staff:

LTCOL Martin Griffiths
(02) 6265 3610

Phase Scope

Phase 2B aims to improve the information management support available to the ADF. Phase 2B is intended to deliver an upgraded Enterprise Resource Planning System with an enhanced materiel finance capability, an Integrated Consignment Tracking application and a Deployable Capability. This is to be backed up by changes to the associated business processes of the logistics information system and an extensive program of training.

Phase 2D is intended to rationalise, upgrade, replace, and introduce additional logistics information systems capabilities to improve logistics support to the ADF. This will include information capabilities to support the management of engineering and maintenance; the management of fuels, explosive ordnance, pharmaceuticals; equipment entitlements; cataloguing; and eBusiness infrastructure.

Background

Logistic support is provided to the ADF through the acquisition and distribution of goods and services, and the repair, maintenance and modification of its existing equipment. The processes and applications required to conduct and manage these activities are embedded in the Defence logistics information systems. The main information technology component of these logistics information systems is the Standard Defence Supply System (SDSS).

JP 2077 is a multi-phased proposal to improve Defence's logistics information systems:

- Phase 1 (approved) provided a number of niche upgrades to the logistics information system and funded additional work under the SDSS Upgrade project;
- Phase 2A (approved) included a Project Definition Study in support of Phase 2B and instituted urgent changes to the business processes of the logistics information system; and
- Phase 2C (approved) is delivering a consignment tracking capability based on active radio frequency identification (RFID) technology. It will provide RFID tags, readers and writers, and a basic tracking information system.

Phase 2B has received first pass approval from Government. It is intended to present the phase for second pass approval in two parts (Phases 2B.1 and 2B.2).

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES
	Information & Database Management Systems
Configuration Management	♦
Design	♦
Education and Training	♦
In-Service Support	♦
Project Management	♦
Systems Development	♦
Systems Integration	♦
Test and Evaluation	♦

Acquisition

The areas in which industry requirements are anticipated to focus include:

- system design and development (including software development);
- system integration, including integration of commercial-off-the-shelf (COTS) products;
- supply of hardware and installation; and
- information systems consultancy.

Through-life Support

The industry requirements will be based around developing and maintaining sufficient capability within Australian industry to undertake the range of through-life maintenance and support activities.

Planned Schedule Highlights

Year-of-Decision	Phase 2B – FY 2005/06
	Phase 2D – FY 2007/08
In-service Delivery	Phase 2B – 2007 to 2009
	Phase 2D – 2012 to 2014

Estimated Phase Expenditure

Phase 2B – $150m to $200m
Phase 2D – $350m to $450m

Points of Contact

Phases 2B and 2D

Capability Staff:
Mr Selby Dyer
(02) 6265 1003

Defence Materiel Organisation:
Mr Malcolm McKeith
(03) 9256 4049

Phase Scope

This phase is intended to study and procure technology enabling the tailoring of advanced imagery to reveal and automatically recognise difficult to detect targets and to provide Defence with an operational hyper-spectral imaging capability.

Background

JP 2078 aims to develop a hyper-spectral imaging capability. Hyper-spectral imaging promises to provide remotely sensed detection, classification and identification of earth's features and other objects significant to Defence through spectral analysis of more than 100 bands of reflected energy in the visible part of the electro-magnetic spectrum. Phases of this proposal are:

- Phase 1 the definition phase that provided Defence with an understanding of the potential uses and counter-uses of advanced hyper-spectral imaging techniques.

Australian Industry Opportunities

Yet to be determined.

Planned Schedule Highlights

Year-of-Decision	FY 2015/16 to 2017/18
In-service Delivery	2019 to 2021

Estimated Phase Expenditure

$50m to $75m

Points of Contact

Phase 2

Capability Staff:

Squadron Leader Damien Farrell
(02) 6265 2970

Phase Scope

Phases 2B, 3, and 4 are intended to upgrade the core financial and personnel information systems to accommodate changes in user requirements, technical platforms and upgrades to the commercial application on which they are based. This will ensure the ongoing sustainability of the Defence Enterprise Resource Planning Systems to support Defence capability and decision making requirements. Phase 2B is intended to finalise the integration of the military pay system into the overall personnel system.

Background

JP 2080 seeks to improve the range and quality of information available to managers, deliver business efficiencies and improve the interchange of management information within Defence's command support systems. It also provides an opportunity for the coordination of existing management information initiatives from individual programs and will incorporate a range of architectures, policies, procedures and standards to guide the provision of management information.

JP 2080 comprises of four phases:

- Phase 1 (approved and completed) provided a number of urgent improvements to selected Defence management systems;
- Phase 2 (Phase 2A (approved) and Phase 2B (unapproved)) is intended to improve the efficiency and effectiveness of Defence's finance and personnel management systems; and
- Phases 3 and 4 aim to upgrade the management information systems to ensure that they continue to provide effective support to the Australian Defence Organisation.

Phase 2B has received first pass approval from Government.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in phases 2B, 3 and 4 include:

ACTIVITIES	CAPABILITIES	
	Information & Database Management Systems	Software Systems
Configuration Management	♦	♦
Design	♦	♦
In-Service Support	♦	♦
Project Management	♦	♦
Consulting Services	♦	♦
Systems Design	♦	♦
Systems Integration	♦	♦
Test and Evaluation	♦	♦

Acquisition

Industry requirements for Phase 2B were developed in Phase 2A (approved and completed) and include upgrades to the core financial and personnel computer information systems. Requirements for Phases 3 and 4 will be specified following completion of Phase 2B.

Through-life Support

The industry requirements will be based around developing and maintaining sufficient capability within Australia to undertake a full range of through-life maintenance and support activities.

Planned Schedule Highlights

Year-of-Decision	Phase 2B – FY 2005/06
	Phase 3 – FY 2009/10 to 2011/12
	Phase 4 – FY 2013/14 to 2015/16
In-service Delivery	Phase 2B – 2006 to 2008
	Phase 3 – 2009 to 2011
	Phase 4 – 2016 to 2018

Estimated Phase Expenditure

Phase 2B – $50m to $75m
Phase 3 – $30m to $50m
Phase 4 – $30m to $50m

Point of Contact

Phase 2B, 3 and 4

Capability Staff:	*Chief Finance Officer Group:*	*Chief Information Officer Group:*
Mr Andrew Pellow	Mrs Lorraine Watt	Mr James Jonklaas
(02) 6265 7594	(02) 6265 6925	(02) 6266 4698

Phase Scope

Phase 2 is intended to purchase reserve explosive ordnance stocks to satisfy work-up and some concurrent contingency requirements.

Phase 3 is intended to purchase critical reserve explosive ordnance stocks for remaining concurrent contingency and all safety stock requirements. This phase will particularly address the stocks of newer weapons.

Background

This project seeks to reconstitute reserve stocks of explosive ordnance.

Over many years the benign strategic environment has allowed the ADF to draw down reserve stocks to meet training needs. But the more recent high operational tempo has placed additional pressures on the reserve stockholdings. This project will address the most critical natures. It should be noted that normal operating stock replenishment activity will continue and that this project is aimed at re-establishing the warstock requirements.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in Phases 2 and 3 include:

ACTIVITIES	CAPABILITIES
	Explosive Ordnance Warstock
In-Service Support	♦
Logistical Support	♦

Planned Schedule Highlights

Year-of-Decision	Phase 2 – FY 2007/08
	Phase 3 – FY 2009/10 to 2011/12
In-service Delivery	Phase 2 – 2008 to 2010
	Phase 3 – 2012 to 2014

Estimated Phase Expenditure

Phase 2 – $250m to $350m
Phase 3 – $250m to $350m

Points of Contact

Phase 2 and 3

Capability Staff:
Ms Robyn Shephard
(02) 6265 3163

Defence Materiel Organisation:
Mr Wayne Hayward
(02) 4737 0536

Phase Scope

JP 2089 is intended to deliver tactical data links to legacy platforms and capabilities of the ADF and the infrastructure required to support tactical data exchange at the force level. The initial focus will be on providing digital tactical information links comprising Link 16 and Variable Message Format (VMF).

Phase 2 is intended to implement Tactical Information Exchange (TIE) solutions on the following platforms: Link 16 and VMF in the ANZAC-class guided missile frigates, and VMF on the F/A-18 Hornet aircraft. Phase 2 will also include further definition studies related to other ADF platforms, such as ground-based elements, the Tiger Armed Reconnaissance Helicopter and tactical air transport.

Phase 3 is intended to implement TIE solutions on additional platforms identified through Phase 2 studies.

Background

Tactical data links are key information exchange systems within networked defence forces. Under JP 2089, the ADF is introducing a coherent Tactical Digital Information Link architecture and is systematically introducing data links to selected platforms.

Other phases of JP 2089 include:

- Phase 1 (approved) is in progress. This phase is a Project Definition Study that will define the scope of later phases. One of the studies will be a Tactical Information Exchange System-of-Systems Concept for the ADF to allow assessment of the ADF's current and future platforms out to 2015 and quantify the requirements to ensure all platforms can seamlessly exchange tactical information across the battlespace.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in Phases 2 and 3 include:

ACTIVITIES	CAPABILITIES			
	Command & Control Systems	Communication Systems	Information & Database Management Systems	Tactical Data Links
Assembly / Construction		♦	♦	♦
Configuration Management	♦	♦	♦	♦
Design	♦	♦	♦	♦
Education and Training	♦	♦	♦	♦
Project Management	♦	♦	♦	♦
Systems Development	♦	♦	♦	♦
Systems Integration	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦

Acquisition

Phase 2 – It is expected that TIE solutions for the high priority platforms (ANZAC class guided missile frigates and F/A-18 Hornet aircraft) will be achieved through leveraging off current project contracts. There will be a competitive tender for a further PDS element.

Phase 3 – Although the industry requirements are yet to be developed, Australian industry involvement is expected in the majority of the proposed activities. The industry requirements will be guided by the information obtained through the Phase 2 Definition Studies.

Through-life Support

Phase 2 – It is expected that through-life support for the TIE solutions for the priority platforms will be achieved through leveraging off current project contracts.

Phase 3 – The industry requirements will be based around developing and maintaining sufficient capability within Australian industry to undertake a full range of through-life operation, maintenance and support activities.

Planned Schedule Highlights

Year-of-Decision	Phase 2 – FY 2006/07
	Phase 3 – FY 2009/10 to 2011/12
In-service Delivery	Phase 2 – 2006 to 2008
	Phase 3 – 2010 to 2012

Estimated Phase Expenditure

Phase 2 – $100m to $150m
Phase 3 – $50m to $75m

Points of Contact

Phase 2 and 3

Capability Staff:
Commander Ian McConachie, RAN
(02) 6265 1316

Defence Materiel Organisation:
Mr Kevin Pottinger
(02) 6266 0722

Phase Scope

Phase 1C is intended to upgrade, augment and enhance Defence's existing fixed and deployable network infrastructure and services used to support electronic exchange of information with key allies and coalition partners across national and coalition security boundaries.

Background

JP 2090 seeks to provide the core infrastructure and services to enable classified information exchange with traditional and non-traditional allied partners over fixed networks. This capability is important for Defence to enable it to support both the planning and conduct of operations and the day-to-day business of Defence with other nations.

Other phases of JP 2090 include:

- Phase 1A (approved) is largely complete. This phase developed a capability demonstrator as a potential solution to multi-level information security in the coalition environment; and
- Phase 1B (approved) is in progress. This phase will provide for urgent bilateral information exchange requirements with the United States and the United Kingdom.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES		
	Communication Systems	Information Technology Hardware Systems	Software Systems
Equipment Supply	♦	♦	♦
Education and Training	♦	♦	♦
In-Service Support	♦	♦	♦
Software Supply	♦	♦	♦

Acquisition

Industry requirements will be based largely around the provision of project management, information technology (IT) systems design, integration, installation and commissioning of system components. The majority of both hardware and software is likely to be commercial off-the-shelf items available from ANZ suppliers, with some specialist items sourced from overseas.

Through-life Support

Industry requirements will be based around developing and maintaining sufficient capability within Australian industry to undertake a full range of through-life maintenance and support activities. Through-life support activities will likely be undertaken within the existing ANZ based IT sector.

Planned Schedule Highlights

Year-of-Decision	FY 2006/07
In-service Delivery	2007 to 2008

Estimated Phase Expenditure

$30m to $50m

Points of Contact

Phase 1C

Capability Staff:

Mr Andrew Tape
(02) 6265 7035

Chief Information Officer Group:

Mr Claude D'Abrera
(02) 6265 8103

Phase Scope

This phase is intended to focus on the correlation and fusion of the data sourced from multiple surveillance sensors available to the Australian Defence Organisation (ADO) and, most importantly, the information management (including Tasking and Dissemination) of the sensor outputs. An upgrade to the Jindalee Operational Radar Network (JORN) is also intended to be part of this project.

Background

Continuous surveillance of our northern air and sea approaches is a high priority of the Government and successive Defence policies have articulated this requirement. The DCP contains many projects that will deliver platforms/capabilities that will contribute to this mission. The Government has articulated a vision for an integrated national surveillance system, fusing the outputs from JORN and other sensor systems.

The focus of JP 2096 will be on the correlation and fusion of the data sourced from multiple surveillance sensors available to the ADO and the information management of the sensor outputs.

Australian Industry Opportunities

Yet to be determined.

Planned Schedule Highlights

Year-of-Decision	FY 2011/12 to 2013/14
In-service Delivery	2014 to 2016

Estimated Phase Expenditure

$250m to $350m

Point of Contact

Phase 1

Capability Staff:

Wing Commander Peter Davis
(02) 6265 5561

Phase Scope

This phase is intended to enhance the ADF Special Operations capability.

Background

Project REDFIN is a proposal that seeks to progress the ADF Special Operations capability into the next generation in order to maintain the technological edge over emerging threat elements. This will enable Special Operations Command to continue to provide options to Government beyond the capabilities of other ADF elements.

These capabilities are to cover the whole spectrum of Special Operations, including offensive operations (such as strike), special reconnaissance, special recovery, support operations and counter terrorism.

Australian Industry Opportunities

Overview

Australian industry involvement is sought, however many Special Operations legacy and future systems will have a high degree of interoperability with coalition partners. While innovative research and development is encouraged, it should not be at the expense of delivery of a timely solution that meets the specific requirements for each mission critical system.

Industry should offer leading edge solutions to the project with an emphasis on delivering lightweight, yet robust and flexible systems. Some systems will need to be integrated with other systems.

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES							
	Command & Control Systems	Communication Systems	Information & Database Management Systems	Radar Technologies	Space Based Communication	Surveillance & Reconnaissance Systems	Weapon Systems	Vehicles
Assembly / Construction		♦	♦				♦	♦
Configuration Management								♦
Education and Training							♦	♦
In-Service Support	♦	♦	♦	♦	♦	♦	♦	♦
Logistical Support	♦		♦				♦	♦
Refurbishment / Outfitting								♦
Systems Development	♦		♦				♦	♦
Systems Integration	♦	♦	♦	♦	♦			♦
Test and Evaluation	♦	♦	♦			♦	♦	♦

Acquisition

Some systems will need to be integrated with existing and planned capabilities. Systems should be delivered with full consideration of life cycle issues. Specific industry requirements will be guided by the information gained through the preliminary and requirements stages of the project.

Through-life Support

Full through-life support is needed and more specific requirements will be determined through information gained during the preliminary and requirements stages of the project.

Planned Schedule Highlights

Year-of-Decision	FY 2007/08
In-service Delivery	2010 to 2012

Estimated Phase Expenditure

$350m to $450m

Points of Contact

Phase 1

Capability Staff:

Major David Tonna
(02) 6265 4643

Defence Materiel Organisation:

Mr Malcolm Fahey
(03) 9282 6019

Phase Scope

JP 2099 proposes a Defence-wide identity management capability to manage the verification and control of Defence Identities. This capability will provide personnel and systems with trusted, reliable, timely and authoritative confirmation of the electronic identity of personnel and network-aware resources, including computing devices, sensors and weapon systems, operating across fixed and deployed components of Defence's information environment. This phase is intended to:

- deliver policy, governance and assurance processes, and standards to manage Defence Identity information throughout its life cycle;
- deliver a governance structure to manage and control Defence Identity; and
- implement the necessary technical infrastructure to deliver the common service.

Background

The proposed capability recognises that a trusted source of identity will become increasingly critical as Defence's dependence on networked personnel and systems continues to increase in all capability areas, including in the broader Network Centric Warfare and allied interoperability arenas. The proposed capability will enable Defence to adopt a coherent, strategic approach to Identity Management, allowing the implementation of high assurance identification and authentication services to enable the efficient integration of other Defence capabilities and systems.

Phase 1 has received first pass approval from Government.

Australian Industry Opportunities

Whilst the opportunities for Australian industry in this project are yet to be determined it is anticipated that local industry involvement may include:

- systems integration and on going support, incorporating systems engineering tasks (potentially including design and development for some components), project management, system acquisition and support, integration and testing of equipment and services;
- software development to support the integration of various sub-systems into the overall solution;
- specialist consulting services, including risk management and security and identity management policy; and
- opportunities to locally source a range of commercial-off-the-shelf information technology hardware and software, including Smartcards, Smartcards readers, enrolment workstations, token printers, and server hardware and software.

Planned Schedule Highlights

Year-of-Decision	FY 2007/08
In-service Delivery	2010 to 2012

Estimated Phase Expenditure

$75m to $100m

Points of Contact

Phase 1

Chief Information Officer Group:

Mrs Mandy Cramer
(02) 6265 6311

Phase Scope

JP 5408 is intended to enhance Global Position Systems (GPS) on ADF legacy (in-service) platforms by providing either protection or redundancy capabilities in response to jamming or deception. The provision of such systems will enable selected ADF capabilities to conduct operations in a navigation warfare environment.

Phase 3 will continue the work for platforms that are not included in Phase 2B.

Background

In 1993, the United States of America Government publicly acknowledged the vulnerability of GPS capabilities to Navigation Warfare (NAVWAR). JP 5408 aims to provide GPS NAVWAR protection to key ADF platforms.

The Phases of JP 5408 include:

- Phase 1 (approved) is in progress and includes a Project Definition Study that defines the scope of enhancements and replacements for the current GPS systems. The Project Definition Study was delivered in 2002; and
- Subsequent phases 2B (approved) and 3, are intended to incrementally implement the enhancements and replacements to the ADF's GPS equipped platforms as recommended by Phase 1 studies.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in Phase 3 include:

ACTIVITIES	CAPABILITIES	
	Electronic Warfare Systems	Navigation Systems
Installation Design and Integration	♦	♦
Prototype Installation	♦	♦
Structures	♦	♦
Systems Architecture	♦	♦

Acquisition

Phase 3 industry requirements may include design and development of relevant support systems and the development and integration of GPS enhancement modification into nominated ADF platforms.

Through-life Support

It is intended that all phases will be based around developing and maintaining sufficient capability within Australian industry to undertake a full range of through-life maintenance and support activities.

Planned Schedule Highlights

Year-of-Decision	FY 2007/08
In-service Delivery	2010 to 2012

Estimated Phase Expenditure

$50m to $75m

Points of Contact

Phase 3

Capability Staff:

Squadron Leader Mick Cawley
(02) 6265 2073

Defence Materiel Organisation:

Wing Commander Stephen Watts
(02) 6265 5534

Phase Scope

Phase 2C is intended to provide an alternative facility for Headquarters Joint Operations Command. The alternative headquarters is likely to be based on existing facilities, and the scope of this phase is limited to enhancing the information technology (IT) and communications infrastructure at the site(s) chosen, together with some minor facilities upgrade.

Background

JP 8001 is a multi-phased proposal to acquire permanent and deployable facilities and supporting command, control, communications, computing and intelligence (C4I) systems to support Theatre and Joint Operational Command of ADF operational forces.

Other phases of JP 8001 include:

- Phase 2B.2 (approved) is in progress. This phase will see the construction of a permanent facility for an integrated Headquarters Joint Operations Command (HQJOC) capable of planning and conducting joint, combined and single-service military campaigns, operations and other designated activities;
- Phase 3A (approved) is largely complete. This phase provided capabilities to support a deployable Joint Task Force Headquarters both afloat (HMAS MANOORA) and on land (based on the Deployable Joint Force Headquarters);
- Phase 3B (approved) is largely complete. This phase provided capabilities to support a deployable Joint Task Force Headquarters afloat (HMAS KANIMBLA) and land-based systems to support a Brigade, Flotilla or Air Wing deployment;
- Phase 3C.1 is complete. This phase was a Project Definition Study to define the requirements for, and develop a prototype, for a Deployable Accredited Secure Intelligence Facility; and
- Phase 3C.2 (approved) is in progress. This phase will deliver the mature Deployable Accredited Secure Intelligence Facility capability.

Australian Industry Opportunities

Acquisition

Although the industry requirements are yet to be fully developed, areas on which requirements are anticipated to focus include:

- systems installation;
- technical support services; and
- minor facilities upgrades.

Planned Schedule Highlights

Year-of-Decision	FY 2005/06
In-service Delivery	2007 to 2009

Estimated Phase Expenditure

Less than $20m

Points of Contact

Phase 2C

Capability Staff:

Commander Daniel Gibbons, RAN
(02) 6265 5227

Corporate Support and Infrastructure Group

Air Commodore Brian (Jack) Plenty
(02) 6266 8568

Phase Scope

LAND 17 is intended to enhance the Australian Army indirect fire support system through the replacement or upgrade of the 105mm Hamel Howitzer and 155mm M198 Howitzer fleets when they reach the end of their service life.

Background

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

This phase has received first pass approval from Government.

Australian Industry Opportunities

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES			
	Weapon Systems	Command and Control Systems	Communication Systems	Simulation Systems
Assembly / Construction		♦		♦
Configuration Management	♦	♦	♦	♦
Education and Training	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦
Refurbishment / Outfitting	♦	♦	♦	♦
Simulation / Modelling	♦	♦	♦	♦
Systems Integration	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦

Planned Schedule Highlights

Year-of-Decision	FY 2008/09 to 2010/11
In-service Delivery	2011 to 2013

Estimated Phase Expenditure

$450m to $600m

Points of Contact

Phase 1

Capability Staff:
Major Matt Taylor
(02) 6265 1734

Defence Materiel Organisation:
Lieutenant Colonel Steven Hume
(03) 9282 5832

Phase Scope

This phase is intended to enhance or replace the existing Ground Based Air Defence (GBAD) system. It may include new technologies and weapon systems that are also capable of countering rockets, artillery and mortars.

Background

The current Army GBAD capability provided by the RBS 70 system aims to protect static or mobile ADF personnel and assets deployed in the land environment. The LAND 19 Phase 7 capability is expected to combine the components of airspace surveillance and identification, target tracking, and target interception and destruction. The capability will be managed by a networked command, control, communications, computing and intelligence system.

The LAND 19 Phase 7 capability may deploy as a component of the ADF Air Defence System and may operate independently, or in conjunction with Joint or Coalition air and missile defence weapons.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES			
	Weapon Systems	Command and Control systems	Communication systems	Simulation Systems
Configuration Management	♦	♦	♦	♦
Assembly / Construction		♦		♦
Education and Training	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦
Testing and Evaluation	♦	♦	♦	♦
Systems Integration	♦	♦	♦	♦

Acquisition

There is unlikely to be sufficient demand for a viable local manufacturing capability, however Australian industry may undertake component production, integration, training, test and evaluation.

Through-life Support

There may be opportunities for Australian industry involvement in the through-life support of hardware and software repairs and maintenance.

Planned Schedule Highlights

Year-of-Decision	FY 2015/16 to 2017/18
In-service Delivery	2018 to 2020

Estimated Phase Expenditure

$750m to $1000m

Points of Contact

Phase 7

Capability Staff:

Major Paul Randall
(02) 6265 4441

Defence Materiel Organisation:

Mr Ross Erickson
(03) 9282 4425

Phase Scope

This phase is intended to provide the Australian Army with a range of direct fire support weapon systems that will be integral to an Infantry Battalion.

Background

LAND 40 comprises two phases:

- Phase 1 (completed) provided a medium range, direct fire guided weapon for attacking bunkers, buildings and armoured vehicles; and
- Phase 2 seeks to provide a range of direct fire support weapons for use by an Infantry Battalion.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES		
	Simulation Systems	Training Aids	Weapon Systems
Assembly / Construction	♦	♦	♦
Configuration Management	♦	♦	♦
Design	♦	♦	♦
In-Service Support	♦	♦	♦
Logistical Support			♦

Acquisition

There is unlikely to be sufficient demand for a viable local manufacturing capability, however Australian industry may undertake component production, training, test and trials.

Through-life Support

There may be opportunities for Australian industry involvement in the through-life support of ammunition production, spare parts supply, repairs and maintenance.

Planned Schedule Highlights

Year-of-Decision	FY 2007/08
In-service Delivery	2008 to 2010

Estimated Phase Expenditure

$150m to $200m

Points of Contact

Phase 2

Capability Staff:
Major Lachlan Mercer
(02) 6265 4349

Defence Materiel Organisation:
Lieutenant Colonel James McRae
(03) 9282 6542

Phase Scope

This phase is intended to replace the ADF Night Fighting Equipment, such as night vision goggles, night weapon sights and night aiming devices as they reach the end of their service life.

Background

LAND 53 (NINOX) is a multi-phased project intended to provide a suite of surveillance systems. These include Perimeter Surveillance Equipment, Night Fighting Equipment, Ground Surveillance Radar and Thermal Surveillance Systems which provide land forces with detection and recognition capabilities under various battlefield conditions.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this Phase include:

ACTIVITIES	CAPABILITIES			
	Data Fusion Technologies	Photonics Technologies	Sensor Systems	Surveillance & Reconnaissance Systems
Assembly / Construction	♦	♦		♦
Configuration Management	♦	♦		♦
Design			♦	
Education and Training	♦	♦		♦
In-Service Support	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦
Project Management	♦	♦	♦	♦
Refurbishment / Outfitting				♦
Systems Development			♦	
Systems Integration	♦	♦	♦	♦
Test and Evaluation	♦	♦		♦

Acquisition

LAND 53 Phase 1BR is not yet sufficiently defined for any reliable data on the detail of the acquisition.

Through-life Support

Potential for a through-life support agency but limited likelihood of significant support contracts within Australia for repair/maintenance.

Planned Schedule Highlights

Year-of-Decision	FY 2008/09 to 2010/11
In-service Delivery	2010 to 2012

Estimated Phase Expenditure

$150m to $200m

Points of Contact

Phase 1BR

Capability Staff:
Lieutenant Colonel John Baird
(02) 6265 1554

Defence Materiel Organisation:
Mr Iain Dunn
(03) 9282 6059

Phase Scope

This phase is intended to extend the life of the ADF AN/TPQ-36 Weapon Locating Radar.

Background

The AN/TPQ-36 Weapon Locating Radar was introduced into service in 1987 as an earlier phase of LAND 58. A total of seven radars and a simulator, plus support and test equipment were purchased. The upgraded radars are expected to be capable of locating (detecting and providing targeting data) mortars, guns and rockets in the tactical land environment.

This phase has received first pass approval from Government.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES			
	Radar Technologies	Simulation Systems	Surveillance & Reconnaissance Systems	Training Aids
Assembly / Construction	♦	♦	♦	♦
Configuration Management	♦	♦	♦	♦
Education and Training	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦
Project Management	♦	♦	♦	♦
Refurbishment / Outfitting	♦	♦	♦	♦
Systems Integration	♦	♦	♦	
Test and Evaluation	♦	♦	♦	♦

Acquisition

Opportunity exists for Australian industries to be involved in the restoration, integration and management of the systems.

Through-life Support

Opportunity exists for Australian industries to provide in country through-life support of the systems.

Planned Schedule Highlights

Year-of-Decision	FY 2006/07
In-service Delivery	2007 to 2009

Estimated Phase Expenditure

$30m to $50m

Points of Contact

Phase 3

Capability Staff:
Major Paul Randall
(02) 6265 4441

Defence Materiel Organisation:
Lieutenant Colonel Duncan Roach
(03) 9282 5380

Phase Scope

Phase 3.4 is intended to provide further rollout of the Battlefield Command Support System (BCSS) and acquire an interim Battle Management System (BMS) capability to equip a Battle Group.

Phases 4 and 5 aim to complete the rollout of, and provide enhancement to, the Australian Army's BMS. The exact scope and mix of capabilities to be provided in each of these phases is yet to be determined.

Background

LAND 75 is a multi-phased proposal to provide the Australian Army with a BCSS and BMS. These systems will allow the transfer, processing and management of tactical level information necessary for the conduct and control of land operations.

Others phases of LAND 75 include:

- Phases 1 and 2 are complete. These phases were studies conducted throughout the 1980s under the auspices of the (then) Australian Army Tactical Command and Control System (AUSTCCS) project;
- Phase 3.1 is complete. This phase delivered the first iteration of BCSS under a contract with CelciusTech Australia;
- Phase 3.2 is complete. This phase moved BCSS from Unix to NT technology and delivered the NT-based BCSS to the Army's 1st Brigade;
- Phase 3.3 is complete. This phase simplified the user interface of BCSS through a contract with Saab Systems Australia (formerly CelciusTech). To simplify the Phase 3.3 deliverables, responsibility for development of a Special Forces command support capability was transferred to JP 2030 – Joint Command Support Environment; and
- Phase 3.3B (approved) continues to enhance the functionality, stability and interoperability of BCSS and rollout the system within the Australian Regular Army.

Phase 3.4 has received first pass approval from Government.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in Phase 3.4 include:

ACTIVITIES	CAPABILITIES			
	Command & Control Systems	Information & Database Management Systems	Simulation Systems	Training Aids
Assembly / Construction	♦			♦
Configuration Management				♦
Design	♦			♦
Education and Training	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦
Refurbishment / Outfitting				♦
Simulation / Modelling	♦	♦	♦	♦

ACTIVITIES	CAPABILITIES			
	Command & Control Systems	Information & Database Management Systems	Simulation Systems	Training Aids
Systems Development	♦		♦	♦
Systems Integration	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦

Capabilities and related activities that may provide opportunities for Australian industry in Phases 4 and 5 include:

ACTIVITIES	CAPABILITIES
	Command & Control Systems
Assembly / Construction	♦
Configuration Management	♦
Education and Training	♦
In-Service Support	♦
Logistical Support	♦
Refurbishment / Outfitting	♦

Acquisition

Although the acquisition strategy is still being determined, opportunities may exist for Australian industries to provide BMS hardware and then integrate this hardware into the ADF's A and B vehicle fleets. Opportunities for BMS software development may be limited as the ADF intends to seek a fully developed military off-the-shelf/commercial off-the-shelf solution.

Through-life Support

Through-life support is a key aspect of the BMS acquisition. There is a preference for systems to be supported and maintained in Australia.

Planned Schedule Highlights

Year-of-Decision	Phase 3.4 – FY 2007/08
	Phase 4 – FY 2009/10 to 2011/12
	Phase 5 – FY 2015/16 to 2017/18
In-service Delivery	Phase 3.4 – 2007 to 2009
	Phase 4 – 2010 to 2012
	Phase 5 – 2017 to 2019

Estimated Phase Expenditure

Phase 3.4 – $75m to $100m
Phase 4 – $200m to $250m
Phase 5 – $200m to $250m

Points of Contact

Phases 3.4, 4 and 5

Capability Staff:
Mr Ian Williams
(02) 6265 7332

Defence Materiel Organisation:
Lieutenant Colonel Michael Toohey
(02) 6266 7432

Phase Scope

Phase 6 is intended to extend the life of a limited number of weapons within the ADF small arms fleet, such as F88 Austeyr Rifle, F89 Minimi Light Support Weapon and the MAG 58 General Service Machine Gun.

Phase 7 is intended to extend the life of the remainder of the small arms fleet.

Background

LAND 91 is a multi-phased project to provide a small arms capability to the ADF. Other phases included:

- Phase 1 (complete) conducted a study into calibre standardisation for the ADF;
- Phase 2 (complete) conducted a study into the replacement of the smalls arms fleets;
- Phases 3, 4 & 5 (complete) acquired the General Service Machine Gun (MAG 58), the rifle replacement (F88 Austeyr) and the Light Support Weapon (F89 Minimi).

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in Phases 6 and 7 include:

ACTIVITIES	CAPABILITIES
	Weapon Systems
Assembly / Construction	♦
Configuration Management	♦
Design	♦
In-Service Support	♦
Logistical Support	♦

Acquisition

There may be opportunities for Australian industry involvement in production, integration, test and evaluation.

Through-life Support

There may be opportunities for Australian industry involvement in the through-life support of spare part supply, repairs and maintenance.

Planned Schedule Highlights

Year-of-Decision	Phase 6 – FY 2008/09 to 2010/11
	Phase 7 – FY 2015/16 to 2017/18
In-service Delivery	Phase 6 – 2010 to 2012
	Phase 7 – 2019 to 2021

Estimated Phase Expenditure

Phase 6 – $50m to $75m
Phase 7 – $150m to $200m

Points of Contact

Phase 6 and 7

Capability Staff:

Major Lachlan Mercer
(02) 6265 4349

Defence Materiel Organisation:

Lieutenant Colonel Stephen Saddington
(03) 9282 6441

Phase Scope

LAND 112 Phase 4 is a survivability enhancement and mid-life upgrade of the fleet of Australian Light Armoured Vehicles (ASLAV). This phase may include some or all of the following:

- enhancing ASLAV survivability against current and future threats. Possible enhancements include:
  - mine protection;
  - ballistic protection;
  - battlefield management system integration;
  - signature management; and
  - defensive aid suite;
- offsetting weight increases to the vehicle caused by the above survivability enhancements in order to maintain current amphibious and land mobility;
- upgrading or replacing the power pack; and
- enhancing the Crew Procedural Trainer.

Background

LAND 112 is a multi-phased proposal to provide a Light Armoured Vehicle for the Australian Army. Other phases include:

- Phase 1 (complete) acquired 15 wheeled, light armoured vehicles from the United States Marine Corps for a concept evaluation of wheeled reconnaissance in the north of Australia;
- Phase 2 (complete) acquired 113 wheeled, light armoured vehicles. The vehicles were manufactured by General Motors Defense of Canada, with final fit-out in Australia completed by BAE Systems Australia; and
- Phase 3 (in progress) is acquiring 144 additional ASLAV to equip 2nd/14th Light Horse Regiment, to fully equip 2nd Cavalry Regiment and to retrofit earlier Phase 2 ASLAV to the improved Phase 3 standard.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES	
	Systems Architecture	System Enhancements
Assembly / Construction	♦	♦
Configuration Management	♦	♦
Design	♦	♦
Education and Training	♦	♦
In-Service Support	♦	♦
Logistical Support	♦	♦
Project Management	♦	♦
Refurbishment / Outfitting		♦
Simulation / Modelling		♦

ACTIVITIES	CAPABILITIES	
	Systems Architecture	System Enhancements
Systems Development	♦	♦
Systems Integration	♦	♦
Test and Evaluation	♦	♦

Opportunities for Australian industry may exist in the integration of electronic and mechanical systems to armoured vehicles including mine protection, battlefield management, signature management and ballistic protection.

Acquisition

For the acquisition stage of this proposal, the industry requirements may be satisfied through:

- production and installation of enhanced mission role kits;
- possible supply and installation of the applique protection kits and spall liners (for ASLAV interior);
- systems enhancements for electronic, communication and electro-mechanical components;
- manufacture of components and assemblies, storage and shipping containers, special tools and test equipment, consumables and other repair parts; and
- training and provision of technical documentation.

Through-life Support

It is anticipated that one or a number of Australian contractors may undertake through-life support activities.

Planned Schedule Highlights

Year-of-Decision	FY 2010/11 to 2012/13
In-service Delivery	2012 to 2014

Estimated Phase Expenditure

$200m to $250m

Points of Contact

Phase 4

Capability Staff:
Captain Michael Scott
(02) 6265 3875

Defence Materiel Organisation:
Lieutenant Colonel Paul Harris
(03) 9282 6322

Phase Scope

Phase 3A is intended to commence the replacement of Army's field vehicles and trailers. Higher readiness units will be equipped first.

Phase 3B is intended to provide replacement field vehicles and trailers for the remainder of the ADF.

Background

LAND 121 (Overlander) is a multi-phased proposal to provide the ADF with field vehicles and trailers to meet its mobility requirements. The ADF fleet of field vehicles and trailers is the backbone of its war fighting force and sustainment structure. These vehicles are used to transport personnel, combat supplies, materiel, replacement combat systems and, when necessary, evacuate casualties. They also serve as platforms and prime movers for command, control, communications, computer and intelligence (C4I) systems and numerous weapon systems.

Field vehicles and trailers are an essential element of combat, combat support and combat service support capabilities of the ADF. Vehicle characteristics must be tailored to suit the units and equipment they support as well as the conditions under which they are required to operate.

The current phases of LAND 121 include:

- Phase 2A (in progress) is enhancing current capability for heavy recovery and bulk liquid transport. It also addresses excessive cabin noise and personnel/cargo restraint and segregation systems and roll over protection;
- Phase 3A seeks to commence the replacement of the current fleet of ADF field vehicles and trailers with future field vehicles and trailers; and
- Phase 3B extends the replacement of ADF field vehicles and trailers across the remainder of the fleet.

Phases 3A and 3B have received first pass approval from Government.

Australian Industry Opportunities

Overview

LAND 121 may offer the following opportunities for Australian industry:

- specific production/design opportunity in the total work package that may contribute to the global market;
- production of components that may contribute to the global supply market;
- modifications required to meet Australian design rules;
- production of trailers;
- production and integration of specialist shelters/modules to be fitted to the cab/chassis being sourced from overseas, if commercially competitive;
- project management;
- facilities construction;
- training; and
- production of technical documentation.

Capabilities and related activities that may provide opportunities for Australian industry in Phases 3A and 3B include:

ACTIVITIES	CAPABILITIES
	Heavy, Medium and Light Field Vehicles and Trailers
Assembly / Construction	♦
Configuration Management	♦
Design	♦
Education and Training	♦
In-Service Support	♦
Logistical Support	♦
Project Management	♦
Refurbishment / Outfitting	♦
Systems Integration	♦
Test and Evaluation	♦

Acquisition

LAND 121 Phase 3A acquisition is expected to be based on military-off-the-shelf vehicle platforms, of which a number of proven solutions exist. The desired solution for the vehicle platform is one that is proven and preferably in-service with a major military force.

Phase 3A is to be acquired through three separate methods of procurement:

- The Medium/Heavy Vehicle Segment (comprising Medium weight, Medium, Heavy and Truck Tractor Classes, task specific modules and through-life support) will proceed through a restricted release Request for Tender to the shortlisted companies confirmed through an Invitation to Register Interest process;
- The Light Vehicle Segment (comprising Lightweight and Light Classes, task specific modules and through-life support) will proceed through an open tender process; and
- The Trailer Segment (all classes and through-life support) is to be acquired separately from the vehicle segments.

The prime equipment and sustainment requirements will be developed in parallel. The prime contract will acquire the prime equipment and establish logistic support infrastructure. A sustainment contract will provide for the continuing support of the equipment. Unique ADF specific modules such as Surveillance, Reconnaissance and Ambulance will involve design and development to meet capability requirements.

Phase 3B is expected to be a follow on acquisition from Phase 3A but will include consideration of commercial-off-the-shelf vehicles.

Through-life Support

The industry requirements are likely to be based around developing and maintaining sufficient capability within Australian industry to undertake a full range of through-life maintenance and support activities to the maximum extent possible. The contract period for through-life support is expected to be 15 years with an option for a further 15 years.

Planned Schedule Highlights

Year-of-Decision	Phase 3A – FY 2006/07
	Phase 3B – FY 2008/09 to 2010/11
In-service Delivery	Phase 3A – 2008 to 2010
	Phase 3B – 2011 to 2013

Estimated Phase Expenditure

Phase 3A – $450m to $600m

Phase 3B – $2000m to $2500m

Points of Contact

Phases 3A and 3B

Capability Staff:

Lieutenant Colonel Robin Petersen

(02) 6265 2429

Defence Materiel Organisation:

Brigadier David O'Brien

(03) 9282 5186

Phase Scope

This proposal is intended to develop and acquire enhanced capabilities for the combat soldier.

Background

LAND 125 is a multi-phased, developmental project to optimise the capabilities for dismounted close combat at the individual and section level, including linkages to the combat unit. This will be achieved by providing incremental enhancements to the close combat capability. Phase 3 is planned to provide enhancements to the command, control and communications, lethality and survivability characteristics of the close combat capability.

The LAND 125 strategy and methodology was changed in September 2004 to incorporate a 'Spiral Development' methodology rather than a single acquisition 'big bang' approach. Under this strategy the task of achieving an integrated soldier combat system is divided into realistic increments of integration over time using an evolutionary acquisition concept. The Spiral Development strategy is based on concurrent acquisition, test and evaluation processes to enable the introduction into service of successive Soldier Enhancement versions. This will enable better definition of what enhancements are technologically feasible and the timeframes within which they can be delivered.

An integrated system will improve the ability of the combat soldier and team to see, hear, move, react and engage on the future battlefield. This capability will also enhance the combat soldier's ability to train effectively for this future battlefield by enhancing their command/control and information exchange capability, improving lethality, survivability, sustainability and mobility in the conduct of dismounted combat.

To date, LAND 125 has trialled limited technological enhancements. The enhancements were refined and evaluated in three trials to determine the validity of the proposal and to determine a means of measuring capability improvements.

As a result of the changes in strategy and methodology, and to support the change to Spiral Development, the phase names have been changed as shown below:

- Phase 1 (complete) was a Capability Definition Study conducted in the period 1996-1998. This incorporated three Soldier Combat System Enhancement Studies that were conducted to refine the proposal methodology;
- Phase 2 (complete) included a Project Definition Study;
- Phase 2B (approved) is the Soldier Enhancement Version 1 acquisition. It seeks to introduce incremental enhancements to the ADF's Close Combat Capability through limited integration of capabilities on the soldier;
- Phase 3 is the Soldier Enhancement Version 2 acquisition. This phase will seek to introduce incremental enhancements to the ADF's Close Combat Capability through limited integration of mature military-off-the-shelf technologies in C4I, lethality and survivability; and
- Phase 4 is the Soldier Enhancement Version 3 acquisition. It will seek to deliver enhancements in both mobility and sustainability, as well as further enhancements in command and control at fire team level and above.

Phase 3 has received first pass approval from Government.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in Phase 3 include:

ACTIVITIES	CAPABILITIES					
	Command & Control Systems	Communication Systems	Sensor Systems	Software Systems	Systems Architecture	Weapon Systems
Assembly / Construction	♦					♦
Configuration Management				♦		
Design	♦	♦	♦	♦	♦	♦
In-Service Support	♦	♦		♦		♦
Logistical Support	♦	♦	♦	♦		♦
Systems Development	♦	♦	♦	♦	♦	♦
Systems Integration	♦	♦	♦	♦	♦	♦

An additional activity of the phase also includes the production of lethality and survivability sub-system components.

Capabilities and related activities that may provide opportunities for Australian industry in Phase 4 include:

ACTIVITIES	CAPABILITIES					
	Command & Control Systems	Communication Systems	Data Fusion Technologies	Sensor Systems	Software Systems	Training Aids
Assembly / Construction	♦					
Design	♦	♦	♦	♦	♦	♦
Education and Training					♦	♦
In-Service Support	♦	♦			♦	
Logistical Support	♦	♦	♦	♦	♦	♦
Systems Development	♦	♦	♦	♦	♦	♦
Systems Integration	♦	♦	♦	♦	♦	♦

An additional activity of the phase also includes the production of specific components commensurate with the capabilities of Australian industry.

Acquisition

Australian industry opportunities will be guided by information gained through the employment of earlier enhancements and parallel research and development activities.

Through-life Support

Australian industry opportunities are expected to be based around developing and maintaining sufficient capability within Australian industry to undertake a full range of through-life maintenance and support activities.

Planned Schedule Highlights

Year-of-Decision	Phase 3 – FY 2006/07
	Phase 4 – FY 2009/10 to 2011/12
In-service Delivery	Phase 3 – 2007 to 2009
	Phase 4 – 2010 to 2012

Estimated Phase Expenditure

Phase 3 – $450m to $600m

Phase 4 – $250m to $350m

Points of Contact

Phases 3 and 4

Capability Staff:

Captain Adam Rankin

(02) 6265 2810

Defence Materiel Organisation:

Lieutenant Colonel Craig Oakley

(03) 9282 6486

Phase Scope

This phase is intended to provide high readiness units with an enhanced counter mine capability based on proven off-the-shelf solutions.

Background

LAND 144 seeks to provide the Army with a protected mine clearance vehicle, improved hand held mine detectors and a personnel explosives line clearance system.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES		
	Armoured mine clearance bulldozer	Improved hand held mine detectors (IHD)	Personal explosive lane clearance charge (PELCC)
Education and Training	♦	♦	♦
In-Service Support	♦	♦	♦
Logistical Support	♦	♦	♦
Systems Integration	♦	♦	♦

Through-life Support

Australian industry will have the opportunity to compete for integration, training and through-life support activities for some of the equipment procured under this project. Australian industry may have the capacity to supply mine detector parts and technical support.

Planned Schedule Highlights

Year-of-Decision	FY 2007/08
In-service Delivery	2008 to 2010

Estimated Phase Expenditure

$20m to $30m

Points of Contact

Phase 1

Capability Staff:
Lieutenant Colonel Steven Salvestro
(02) 6265 7875

Defence Materiel Organisation:
Mr Andrew Blackman
(03) 9282 4561

Phase Scope

Land 146 is a multi-phased project that is intended to acquire and introduce a Combat Identification (CID) capability that enhances the operational effectiveness of ADF Land Force elements, while minimising the risk of fratricide.

Phase 2 will leverage on the capability delivered under Phase 1 by equipping the remainder of the Land Force with the coalition compatible system.

Phase 3 will acquire the next generation of combat identification capability to remain interoperable with coalition forces whilst exploiting technological developments to further enhance the soldier's combat effectiveness.

Background

CID is the process of determining an accurate understanding of objects and persons detected in the battlespace to allow the timely application of tactical options and weapons effects. The key role of the CID system is to positively identify the location and status of friendly forces to allow the precise and discriminative application of firepower in the battlespace and therefore minimise fratricide. The situational awareness expected to be provided by this capability will form a significant building block of the Network Centric Warfare concept.

Phase 1 (approved) is conducting studies into CID approaches and technologies and is currently acquiring an interim CID capability for a Deployable Battle Group (DBG) in the 1st Brigade. This capability will see the DBG equipped with the recognised CID baseline for coalition operations.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in Phase 2 and 3 include:

ACTIVITIES	CAPABILITIES							
	Command & Control Systems	Communication Systems	Data Fusion Technologies	Information & Database Management Systems	Sensor Systems	Simulation Systems	Software Systems	Surveillance & Reconnaissance Systems
Education / Training	♦	♦	♦	♦	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦	♦	♦	♦	♦
Systems Integration	♦	♦	♦	♦	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦	♦	♦	♦	♦

Planned Schedule Highlights

Year-of-Decision	Phase 2 – FY 2007/08
	Phase 3 – FY 2015/16 to 2017/18
In-service Delivery	Phase 2 – 2009 to 2011
	Phase 3 – 2019 to 2021

Estimated Phase Expenditure

Phase 2 – $100m to $150m

Phase 3 – $200m to $250m

Points of Contact

Phases 2 and 3

Capability Staff:

Squadron Leader Jim Godfrey

(02) 6265 1101

Defence Materiel Organisation:

Mr David Cochrane

(02) 6265 5774

Phase Scope

This phase is intended to enhance survivability of land forces in combat operations through the provision of new warfighting systems. These new systems will incrementally replace the Army's current combat, combat support and some combat service support systems.

Background

The new warfighting systems, based on manned and possibly unmanned platforms, will incrementally replace legacy combat, combat support and some combat service support systems currently fielded in Army Combined Arms Teams. These systems will have very high commonality within their fleets and be interoperable with coalition nations. The systems will be network capable and will have scalable lethality and survivability packages which can be optimised for a range of conditions.

Life-of-type of current land fighting vehicle systems (M113AS3 and ASLAV) is around 2020. This phase will enable the ADF to engage in development programs and is intended to commence replacement of some elements of the system from about 2015. Later phases will be considered in the future.

Australian Industry Opportunities

LAND 400 is in the early stages of the capability life cycle. As a result an understanding of how Australian industry might contribute to this project has not been developed. It is anticipated that specific industry requirements will emerge in late 2006 as the Defence Science and Technology Organisation completes its first studies into the proposal.

Planned Schedule Highlights

Year-of-Decision	FY 2011/12 to 2013/14
In-service Delivery	2015 to 2017

Estimated Phase Expenditure

$1000m to $1500m

Points of Contact

Phase 1

Capability Staff:
Captain Dorian Serfontein
(02) 6265 4360

Defence Materiel Organisation:
Mr John Pluck
(03) 9282 4168

Phase Scope

This phase seeks to introduce a Surface Combatant capability to detect and track submarines and torpedoes at extended ranges for surveillance and tactical purposes.

Background

Current surface forces based ADF underwater sensors are limited to Hull Mounted Sonar (HMS) in RAN Frigates, non-persistent sonar buoys and aircraft fitted magnetic sensors. The frequency, power output and fixed transducer depth of in-service HMS and the non-persistent nature of airborne sensors, limits the ability of surface forces to detect and track modern submarines and torpedoes, particularly in complex environments such as littoral waters.

Advances in the areas of sensors and acoustic signal processing provide the potential to improve the detection, tracking and classification of modern submarines and torpedoes. This project is intended to significantly enhance a Naval Task Group's ability to conduct operations in a submarine threat environment through the detection of submarines beyond their maximum effective torpedo firing range.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES
	Underwater Acoustic Technologies
Assembly / Construction	♦
Configuration Management	♦
Design	♦
Education and Training	♦
In-Service Support	♦
Logistical Support	♦
Project Management	♦
Refurbishment / Outfitting	♦
Simulation / Modelling	♦
Systems Development	♦
Systems Integration	♦
Testing and Evaluation	♦

Acquisition

Yet to be determined.

Through-life Support

Yet to be determined.

Planned Schedule Highlights

Year-of-Decision	FY 2015/16 to 2017/18
In-service Delivery	2018 to 2020

Estimated Phase Expenditure

$100m to $150m

Points of Contact

Phase 4

Capability Staff:

Lieutenant Commander
Roger Fonhof, RAN
(02) 6265 6371

Defence Materiel Organisation:

Mr Chris Eggleton
(03) 9553 1850

Phase Scope

This phase is a follow-on acquisition of Evolved Sea Sparrow Missiles (ESSM) to equip the Royal Australian Navy with further missile stockholdings for the surface combatant force.

Background

ESSM is an initiative by 10 of the 12-nation NATO Sea Sparrow Consortium (of which Australia is a member) to develop an improvement to the existing RIM-7P NATO Sea Sparrow Missile (NSSM). The ESSM program has developed a ship air-defence missile with significantly increased speed and lethality. The related development of a Quad-Pack Canister capability for the Mk41 Vertical Launch System will also allow ANZAC and FFG missile capacity to be quadrupled (32 ESSM versus 8 NSSM). SEA 1428 comprises four phases:

- Phase 1 (complete) was the engineering and manufacturing development of missile modifications, and development of the quad-pack canister;
- Phase 2A (approved) involved the development tasks associated with integration of ESSM into the ANZAC combat system, integration work on ANZAC ships 05, 06 and 07, and initial acquisition of missiles for three ANZACs and six FFGs. This phase will be complete on delivery of ANZAC ship 07 and missiles from the production program;
- Phase 2B/3 (approved) integrates ESSM into the remaining ANZACs (01, 03, 08, 09 and 10) and acquires additional missiles and canisters for them; and
- Phase 4 is intended to acquire additional missiles in accordance with the ADF armament stockholding policy.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES
	Weapon Systems
Assembly / Construction	♦
Configuration Management	♦
Design	♦
Education and Training	♦
In-Service Support	♦
Logistical Support	♦
Project Management	♦
Refurbishment / Outfitting	♦
Simulation / Modelling	♦
Systems Development	♦
Systems Integration	♦
Test and Evaluation	♦

Acquisition

Australian industry requirements are expected to focus on the development of capabilities related to:

- supply and installation of missile components; and
- technical and training support and services.

Through-life Support

Industry requirements are expected to be based around developing and maintaining sufficient capability within Australian industry to undertake a full range of through-life maintenance and support activities. This requirement is spread across a number of sub-contractors dealing with different prime contractors for the missile, launching system, ship combat system and training/simulation systems.

Planned Schedule Highlights

Year-of-Decision	FY 2006/07
In-service Delivery	2007 to 2009

Estimated Phase Expenditure

$75m to $100m

Points of Contact

Phase 4

Capability Staff:

Lieutenant Commander Paul Barrie, RAN
(02) 6265 6630

Defence Materiel Organisation:

Commander Paul Mandziy, RAN
(02) 6266 0158

Phase Scope

Phase 5B.2A is intended to provide a class wide High Data Rate communications antenna for the COLLINS Class submarines.

Phase 5B.2B is intended to deliver focussed upgrades to the COLLINS submarine fleet to sustain the capability relative to regional capabilities.

Phase 6 is intended to fund improvements to the sonar system, including signal processors. It aims to maintain the capability of the COLLINS Class sensors into the future.

Background

Other SEA 1439 Phases include:

- Phases 1 & 2 (complete) involved the conduct of studies into modifications and improvements required to bring the COLLINS Class to full capability against current operational requirements;
- Phase 3 (Sustainability & Reliability Enhancements) and Phase 4 (COLLINS Full Operational Capability including Replacement Combat System) (both approved) implemented key recommendations from the Phase 1 and 2 studies;
- Phase 5B provided for a continuous technology update program to sustain the capability of the COLLINS Submarines. This has subsequently evolved into the three sub-phases, 5B.1, 5B.2A and 5B.2B, under the Collins Continuous Improvement Program (CIP). CIP is designed to leverage off the earlier phases to deliver an effective submarine capability through a program of continuous improvements. Phase 5B.1 (approved) will provide for a class wide UHF SATCOM mast replacement as part of the wider continuous technology update program to sustain the capability advantage of the Collins Submarines.
- Phase 6 proposes to upgrade the sonar system in the Collins submarines.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in Phase 5B include:

ACTIVITIES	CAPABILITIES		
	Communication Systems	Sensor Systems	Structures
Assembly / Construction	♦	♦	♦
Configuration Management	♦	♦	♦
Design	♦	♦	♦
Education and Training	♦	♦	♦
In-Service Support	♦	♦	♦
Logistical Support	♦	♦	♦
Project Management	♦	♦	♦
Refurbishment / Outfitting	♦	♦	♦

ACTIVITIES	CAPABILITIES		
	Communication Systems	Sensor Systems	Structures
Simulation / Modelling		♦	
Systems Development	♦	♦	♦
Systems Integration	♦	♦	♦
Test and Evaluation	♦	♦	♦

Capabilities and related activities that may provide opportunities for Australian industry in Phase 6 include:

ACTIVITIES	CAPABILITIES							
	Data Fusion Technologies	Information & Database Management Systems	Sensor Systems	Software Systems	Systems Architecture	Training Aids	Underwater Acoustic Technologies	Sonar Simulation Systems
Assembly / Construction			♦				♦	♦
Configuration Management	♦	♦	♦	♦	♦	♦	♦	♦
Design	♦	♦	♦	♦	♦	♦	♦	♦
Education and Training	♦	♦	♦	♦	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦	♦	♦	♦	♦
Project Management	♦	♦	♦	♦	♦	♦	♦	♦
Refurbishment / Outfitting			♦				♦	♦
Simulation / Modelling	♦	♦	♦	♦	♦	♦	♦	♦
Systems Development	♦	♦	♦	♦	♦	♦	♦	♦
Systems Integration	♦	♦	♦	♦	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦	♦	♦	♦	♦

Acquisition

Phase 5B – Although some equipment is likely to be sourced from overseas, the intention is to establish significant levels of in-country capability in terms of project management, equipment assembly, system integration, training development and support.

Phase 6 – Although some sonar equipment may be sourced from overseas, the intention is to establish significant levels of in-country capability in terms of niche products, project management, software development, equipment assembly, system integration, training development and support.

Through-life Support

Industry requirements are likely to focus on developing optimum through-life support arrangements including access to key technologies from international suppliers, and based on a sustainable industry to support the submarine capability as part of the Australian naval shipbuilding, refit and repair industry.

Planned Schedule Highlights

Year-of-Decision	Phase 5B.2A – FY 2008/09 to 2010/11
	Phase 5B.2B – FY 2012/13 to 2014/15
	Phase 6 – FY 2008/09 to 2010/11
In-service Delivery	Phase 5B.2A – 2010 to 2012
	Phase 5B.2B – 2015 to 2017
	Phase 6 – 2012 to 2014

Estimated Phase Expenditure

Phase 5B.2A – $100m to $150m
Phase 5B.2B – $100m to $150m
Phase 6 – $350m to $450m

Points of Contact

Phase 5B

Capability Staff:
Commander Andrew Tarpley, RAN
(02) 6265 2134

Defence Materiel Organisation:
Mr Dave Strangward
(02) 6265 6443

Phase 6

Capability Staff:
Commander Andrew Tarpley, RAN
(02) 6265 2134

Defence Materiel Organisation:
Mr Bob Clark
(02) 6266 7051

Phase Scope

Phase 4 is intended to provide for the enhancement of the Maritime Tactical Wide Area Network (MTWAN) including expansion of MTWAN into Fleet units not provided for through earlier phases, integration of capabilities being delivered to maritime platforms by other approved communications projects, and consider the replacement of radios, antennas and other systems to enhance maritime communications.

Background

This project has evolved from a simple radio replacement project, to providing a LAN/WAN-at-sea, and finally to include the entire Maritime Tactical Communications System. SEA 1442 will form the basis of the Networked Fleet, which is a major milestone in the ADF's Network Centric Warfare Roadmap.

Other phases of SEA 1442 include:

- Phase 2B (approved) is largely complete. This phase is a Project Definition Study which has refined the scope of work for Phase 3 and continues to define the options for Phase 4; and
- Phase 3 (approved) is in progress. This phase provides an enhanced ADF maritime communications capability, with the introduction of the MTWAN to a number of Major Fleet Units.

The urgency of Phase 4 has been reduced since DCP 2004-14 as some of the communications and infrastructure have been delivered through other projects such as JP 2008 Phase 3E Satellite Capability.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES				
	Communication Systems	Software Systems	Systems Architecture	Training Aids	Information Technology and Telecommunications
Assembly / Construction	♦	♦		♦	♦
Configuration Management	♦	♦	♦	♦	♦
Design	♦	♦	♦	♦	♦
Education and Training	♦	♦	♦	♦	♦
In-Service Support	♦	♦		♦	♦
Logistical Support	♦	♦		♦	♦
Project Management	♦	♦	♦	♦	♦
Refurbishment / Outfitting	♦			♦	♦
Simulation / Modelling	♦	♦	♦	♦	♦
Systems Development	♦	♦		♦	♦
Systems Integration	♦	♦		♦	♦
Test and Evaluation	♦	♦		♦	♦

Through-life Support

The industry requirements will be based around developing and maintaining sufficient capability within Australian industry to undertake a full range of through-life support activities. The Prime Systems Integrator for acquisition is likely to be contracted for through-life support.

Planned Schedule Highlights

Year-of-Decision	FY 2008/09 to 2010/11
In-service Delivery	2010 to 2012

Estimated Phase Expenditure

$200m to $250m

Points of Contact

Phase 4

Capability Staff:

Commander Ian McConachie, RAN
(02) 6265 1316

Defence Materiel Organisation:

Mr Guna Gounder
(02) 6265 7862

Phase Scope

This phase is intended to replace obsolescent ANZAC class ship sensors and systems, including the SPS 49 Air Search Radar, to maintain an effective capability to defend against modern threats.

Background

The ANZAC Anti Ship Missile Defence Project SEA 1448 Phase 2 (approved) will provide the ANZAC class with an enhanced capability for self protection, as well as the ability to protect closely escorted assets such as amphibious ships, auxiliary support vessels and merchant vessels. This phase includes the development of new Phased Array Radar capabilities.

This project continues the improvement and upgrade of the ANZAC ship sensor capability to align with modern threats. In particular, this phase is intended to replace the SPS 49 long range volume search radar and electronic sensor systems that were not updated under SEA 1448 Phase 2, and which will be become obsolescent by the middle of the next decade. These sensors are critical to the provision of long range warning and for contribution to force level air warfare.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES
	Radar Technologies
Assembly / Construction	♦
Configuration Management	♦
Design	♦
Education and Training	♦
In-Service Support	♦
Logistical Support	♦
Project Management	♦
Simulation / Modelling	♦
Systems Development	♦
Systems Integration	♦
Test and Evaluation	♦

Acquisition

The replacement solution could include further evolution of Australian niche products or overseas equipments integrated, project managed and supported in Australia.

Through-life Support

All principal through-life support management, routine servicing and defect analysis/rectification is intended to be through Australian industry.

Planned Schedule Highlights

Year-of-Decision	FY 2013/14 to 2015/16
In-service Delivery	2017 to 2019

Estimated Phase Expenditure

$350m to $450m

Points of Contact

Phase 4

Capability Staff:

Lieutenant Commander Paul Barrie, RAN
(02) 6265 6630

Defence Materiel Organisation:

Mr Chris Eggleton
(08) 9553 1850

Phase Scope

This phase is intended to replace the capability currently provided by HMAS SUCCESS.

Background

This project seeks to replace the existing RAN afloat support capability for maritime operations. As articulated in the Government's 2000 Defence White Paper there exists a requirement to sustain ships at sea longer and at greater ranges from port. The plan is to replace HMAS SUCCESS with a purpose built support ship when it reaches end of its service life.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES				
	Communication Systems	Propulsion Systems	Radar Technologies	Structures	Training Aids
Assembly / Construction	♦	♦	♦	♦	♦
Configuration Management	♦	♦	♦	♦	
Design	♦		♦		♦
Education and Training	♦	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦	♦
Project Management	♦	♦	♦	♦	
Refurbishment / Outfitting	♦	♦	♦	♦	
Simulation / Modelling			♦		
Systems Development			♦	♦	
Systems Integration	♦	♦	♦	♦	
Test and Evaluation	♦	♦	♦	♦	

Through-life Support

Australian industry would be expected to provide the required in-service support.

Planned Schedule Highlights

Year-of-Decision	FY 2011/12 to 2013/14
In-service Delivery	2015 to 2017

Estimated Phase Expenditure

$450m to $600m

Points of Contact

Phase 3

Capability Staff:
Commander Scott Craig
(02) 6265 5913

Defence Materiel Organisation:
Mr Kim Gillis
(02) 6265 3316

Phase Scope

This phase is intended to introduce an initial capability for deployable mine counter measures (MCM). This will incorporate the embarkation of a range of organic MCM systems in deploying task groups, enabling regional operations in mine threat environments.

Background

Sea mines are an asymmetric weapon and an efficient method of effecting sea denial. Future operations will place a premium on highly mobile naval forces with continuous access to MCM capabilities.

Task Group MCM is intended to provide forward deployed naval forces the capability to accomplish time sensitive mine detection, classification, identification, avoidance and when necessary neutralisation. This will enable the conduct of self-protective MCM and mine avoidance along intended routes into fire support areas, anchorages, transport areas, choke points and alongside wharves. This capability will be supported by the current dedicated MCM Force following the Task Group to conduct long term MCM in order to enhance mine clearance confidence and expand access routes in an area of operation.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in this phase include:

ACTIVITIES	CAPABILITIES						
	Sensor Systems	Command and Control Systems	Software Systems	Propulsion Systems	Surveillance & Reconnaissance Systems	Training Aids	Underwater Acoustic Technologies
Assembly / Construction		♦		♦	♦	♦	♦
Configuration Management	♦	♦	♦	♦	♦	♦	♦
Design		♦		♦		♦	
Education and Training	♦	♦		♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦	♦	♦	♦
Logistical Support	♦	♦		♦	♦	♦	♦
Project Management	♦	♦	♦	♦	♦	♦	♦
Simulation / Modelling	♦	♦	♦	♦	♦	♦	♦
Systems Development	♦	♦	♦	♦	♦	♦	♦
Systems Integration	♦	♦	♦	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦	♦	♦	♦

Acquisition

Although the industry requirements are yet to be developed, the areas in which requirements of this phase are anticipated to focus include:

- specialist consulting services, including technological risk assessment in the identification of suitable hardware and software in order to enhance Australia's operational capability and future developments in MCM capability;
- identification of leading edge system-based solutions in scoping deployable organic MCM systems, with an emphasis on delivering lightweight, yet robust and flexible systems to integrate with the current MCM Force;
- system integration including integration of commercial-off-the-shelf options;

- systems engineering tasks (potentially including design and development for some components for integration with current MCM capability), project management, system acquisition and support, integration and test of equipment and services; and
- software development that may be required to support the integration of the various sub-systems into the overall solution.

Through-life Support

Full through-life support will be needed and more specific requirements for each type of organic MCM systems will be determined by the scoping studies of this phase.

Planned Schedule Highlights

Year-of-Decision	FY 2012/13 to 2014/2015
In-service Delivery	2015 to 2017

Estimated Phase Expenditure

$50m to $75m

Points of Contact

Phase 1

Capability Staff:
Commander Scott Craig, RAN
(02) 6265 5913

Defence Materiel Organisation:
Mr Sam Yamunarajan
(02) 6265 1924

Phase Scope

Phase 3 is intended to acquire the new air warfare capable destroyers.

Background

As part of the Government's 2000 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. This involved a Maritime Capability Options Study and use of a joint Defence and Industry Integrated Project Team to collate and analyse information on Air Warfare platforms currently in build. This process resulted in SEA 4000, which aims to acquire a Maritime Air Warfare capability.

SEA 4000 is a multi-stage proposal to acquire this capability. SEA 4000 Phases include:

- Phase 0 (complete) included a series of funded studies undertaken between 2001 and 2002, to identify capabilities for these platforms;
- Phase 1 (completed) was a project definition phase that ran from July 2002 to mid 2005. The key activity was the development of whole-of-ship concept design options and costs to meet the endorsed capability set, investigation of combat system architecture options and a continuation of study activity to support the design development. Raytheon Australia Pty Ltd was selected as the Combat Systems System Engineer in April 2005, ASC AWD Shipbuilder Pty Ltd was selected as the shipbuilder in May, Navantia was announced as the Existing Platform System Designer (PSD) (based on an 'Australianised' F100) in May, and Gibbs & Cox Inc was selected as the preferred Evolved PSD in August;
- Phase 2 (approved) is the design phase that will run until 2007 and will develop both Evolved and Existing design options which will describe the combat system and ship systems with sufficient detail that the performance can be accurately forecasted. The Phase 2 deliverables are finalised and costed evolved and existing design options suitable for construction under Phase 3. The Government will choose between the two designs towards the end of this Phase;
- Phase 3, the Build phase, is expected to run until 2017 with the key activities being the finalisation of the detailed design, build of the lead ship and two follow-on ships. During this phase, crew training, shore facility development and logistic management infrastructure are planned to be established. The first ship is expected to be delivered in 2013. Phase 3 deliverables include a detailed design and delivery of three ships and associated shore facilities;
- Phase 3.1 (approved) will acquire the AEGIS combat system for the three ships in order to support the timely completion of this project; and
- Phase 4 will be the Test and Acceptance activities.

Phase 3 has received first pass approval from Government.

Australian Industry Opportunities

Overview

Capabilities and related activities that may provide opportunities for Australian industry in Phase 3 include:

ACTIVITIES	CAPABILITIES						
	Communication Systems	Data Fusion Technologies	Electronic Warfare Systems	Information & Database Management Systems	Photonics Technologies	Propulsion Systems	Radar Technologies
Configuration Management	♦	♦	♦	♦	♦	♦	♦
Design	♦	♦	♦	♦	♦	♦	♦
Education and Training	♦	♦	♦	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦	♦	♦	♦
Project Management	♦	♦	♦	♦	♦	♦	♦
Simulation / Modelling	♦	♦	♦	♦	♦	♦	♦
Systems Development	♦	♦	♦	♦	♦	♦	♦
Systems Integration	♦	♦	♦	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦	♦	♦	♦

ACTIVITIES	CAPABILITIES					
	Sensor Systems	Simulation Systems	Software Systems	Surveillance & Reconnaissance Systems	Training Aids	Underwater Acoustic Technologies
Configuration Management	♦	♦	♦	♦	♦	♦
Design	♦	♦	♦	♦	♦	♦
Education and Training	♦	♦	♦	♦	♦	♦
In-Service Support	♦	♦	♦	♦	♦	♦
Logistical Support	♦	♦	♦	♦	♦	♦
Project Management	♦	♦	♦	♦	♦	♦
Simulation / Modelling	♦	♦	♦	♦	♦	♦
Systems Development	♦	♦	♦	♦	♦	♦
Systems Integration	♦	♦	♦	♦	♦	♦
Test and Evaluation	♦	♦	♦	♦	♦	♦

Through-life Support

An Integrated Logistics Support (ILS) concept will be employed throughout Phase 3 of the project. Australian industry involvement in the creation and management of ILS plans and documentation may be available.

Planned Schedule Highlights

Year-of-Decision	FY 2006/07
In-service Delivery	2013 to 2015

Estimated Phase Expenditure

$4500m to $6000m (includes previously approved Phase 3.1)

Points of Contact

Phase 3

Capability Staff:

Captain John Vandyke, RAN
(02) 6265 4062

Defence Materiel Organisation:

Commodore Andrew Cawley, RAN
0417 447 365

Proposal Number	Phase	Phase Name	Estimated Expenditure Band	Page
AIR 6000	Phase 2A/2B	New Aerospace Combat Capability	$4500m to $6000m for each of Phase 2A and 2B	31
SEA 4000	Phase 3	Air Warfare Destroyer	$4500m to $6000m	137
AIR 7000	Phase 2B	Maritime Patrol Aircraft	$3500m to $4500m	33
AIR 6000	Phase 2C	New Aerospace Combat Capability	$2500m to $3500m	31
AIR 9000	Phase 8	Anti-Submarine Warfare/Anti-Surface Warfare Helicopter Capability	$2500m to $3500m	46
LAND 121	Phase 3B	Overlander – Field Vehicles & Trailers	$2000m to $2500m	113
JP 2048	Phase 4A/4B	Amphibious Ships	$1500m to $2000m	67
AIR 7000	Phase 1B	Multi-mission Unmanned Aerial Vehicle (MUAV)	$1000m to $1500m	33
JP 2008	Phase 4	Military Satellite Capability	$1000m to $1500m	59
LAND 400	Phase 1	Survivability of Ground Forces	$1000m to $1500m	122
AIR 8000	Phase 1	C-130H Refurbishment/ Replacement	$750m to $1000m	37
LAND 19	Phase 7	GBAD – RBS 70 Enhancements or replacement	$750m to $1000m	102
AIR 5376	Phase 3.2C	Hornet Structural Refurbishment Stage 2 – Additional	$600m to $750m	19
AIR 5428	Phase 1	Pilot Training System	$600m to $750m	25
JP 2072	Phase 2	Battlespace Communications System (Land)	$450m to $600m	80
LAND 17	Phase 1	Artillery Replacement	$450m to $600m	101
LAND 121	Phase 3A	Overlander – Field Vehicles & Trailers	$450m to $600m	113
LAND 125	Phase 3	Soldier Enhancement Version 2	$450m to $600m	116
SEA 1654	Phase 3	Maritime Operational Support Capability – SUCCESS Replacement	$450m to $600m	134
AIR 5438	Phase 1	Lead-in-Fighter Mid-life Upgrade	$350m to $450m	30
AIR 9000	Phase 3	Seahawk Mid-life Upgrade and Life Extension	$350m to $450m	40
JP 2077	Phase 2D	Improved Logistics Information Systems	$350m to $450m	83
JP 2097	Phase 1	REDFIN – Enhancements to Special Operations Capability	$350m to $450m	94
SEA 1439	Phase 6	Collins Sonar Replacement	$350m to $450m	127

Proposal Number	Phase	Phase Name	Estimated Expenditure Band	Page
SEA 1448	Phase 4	ANZAC Air Search and Further Capability Enhancements	$350m to $450m	132
AIR 8000	Phase 2	Battlefield Airlifter	$250m to $350m	37
AIR 9000	Phase 5B.2	Chinook Mid-Life Upgrade	$250m to $350m	42
AIR 9000	Phase 7A	Navy Helicopter Training System	$250m to $350m	44
AIR 9000	Phase 7B	Army Helicopter Training System	$250m to $350m	44
JP 2030	Phase 8	ADF Joint Command Support Environment	$250m to $350m	62
JP 2047	Phase 3	Wide Area Communications Network Replacement	$250m to $350m	65
JP 2060	Phase 3	ADF Deployable Health Capability	$250m to $350m	70
JP 2064	Phase 3	Geospatial Information Infrastructure and Services	$250m to $350m	72
JP 2085	Phase 2	Explosive Ordnance Warstock	$250m to $350m	88
JP 2085	Phase 3	Explosive Ordnance Warstock	$250m to $350m	88
JP 2096	Phase 1	Surveillance Enhancement	$250m to $350m	93
LAND 125	Phase 4	Soldier Enhancement Version 3	$250m to $350m	116
JP 129	Phase 3	Tactical Unmanned Aerial Vehicles (TUAV) – Enhancements/ Upgrades	$200m to $250m	57
JP 2072	Phase 3	Battlespace Communications System (Land)	$200m to $250m	80
JP 2072	Phase 4	Battlespace Communications System (Land)	$200m to $250m	80
LAND 75	Phase 4	Battlefield Command Support System	$200m to $250m	107
LAND 75	Phase 5	Army Battle Management System	$200m to $250m	107
LAND 112	Phase 4	ASLAV Enhancement	$200m to $250m	111
LAND 146	Phase 3	Combat Identification for Land Forces	$200m to $250m	120
SEA 1442	Phase 4	Maritime Communication & Information Management Architecture Modernisation – Major Capability	$200m to $250m	130
AIR 5276	CAP 3	AP-3C Capability Assurance Program	$150m to $200m	16
DEF 224	Phase 3	Force Level Electronic Warfare	$150m to $200m	48
JP 90	Phase 1	ADF Identification Friend or Foe	$150m to $200m	53
JP 2048	Phase 3	Amphibious Watercraft Replacement	$150m to $200m	67
JP 2048	Phase 4C	Strategic Lift Ship Capability	$150m to $200m	67

Proposal Number	Phase	Phase Name	Estimated Expenditure Band	Page
JP 2077	Phase 2B	Improved Logistics Information Systems	$150m to $200m	83
LAND 40	Phase 2	Direct Fire Support Weapon	$150m to $200m	104
LAND 53	Phase 1BR	NINOX – Night Fighting Equipment Replacement	$150m to $200m	105
LAND 91	Phase 7	Small Arms LOTE – Remainder of the Fleet	$150m to $200m	109
JP 126	Phase 2	Joint Theatre Distribution System	$100m to $150m	55
JP 2030	Phase 9	ADF Joint Command Support Environment	$100m to $150m	62
JP 2089	Phase 2	Tactical Information Exchange Domain (Data Links)	$100m to $150m	89
LAND 146	Phase 2	Combat Identification for Land Forces	$100m to $150m	120
SEA 1100	Phase 4	Long Range Persistent Subsurface Detection Capability	$100m to $150m	123
SEA 1439	Phase 5B.2A	Collins Continuous Improvement Program	$100m to $150m	127
SEA 1439	Phase 5B.2B	Collins Continuous Improvement Program	$100m to $150m	127
AIR 5276	Phase 8B	AP-3C Electronic Support Measure – Acquisition	$75m to $100m	14
AIR 5276	CAP 2	AP-3C Capability Assurance Program	$75m to $100m	16
AIR 5405	Phase 1	Replacement Mobile Region Operations Centre	$75m to $100m	21
AIR 5416	Phase 4B	C-130J Electronic Warfare Self Protection (EWSP)	$75m to $100m	23
AIR 9000	Phase 5B.1	Chinook Mid-Life Upgrade	$75m to $100m	42
JP 2099	Phase 1	Identity Management – Project CERTE	$75m to $100m	96
LAND 75	Phase 3.4	Battlefield Command Support System	$75m to $100m	107
SEA 1428	Phase 4	Evolved Seasparrow Missiles	$75m to $100m	125
AIR 5376	Phase 2.3C	F/A-18 EWSP – Jammers	$50m to $75m	19
AIR 5431	Phase 1	Future Air Traffic Control Surveillance Systems	$50m to $75m	26
JP 2008	Phase 3F	Military Satellite Capability	$50m to $75m	59
JP 2044	Phase 3A	Project Eagle Eye	$50m to $75m	64
JP 2044	Phase 3B	Project Eagle Eye	$50m to $75m	64
JP 2069	Phase 3	High Grade Cryptographic Equipment	$50m to $75m	78
JP 2078	Phase 2	Hyper-spectral Imaging	$50m to $75m	85

Proposal Number	Phase	Phase Name	Estimated Expenditure Band	Page
JP 2080	Phase 2B	Defence Management Systems Improvement	$50m to $75m	86
JP 2089	Phase 3	Tactical Information Exchange Domain (Data Links)	$50m to $75m	89
JP 5408	Phase 3	ADF Navigation Warfare (NAVWAR) Capability	$50m to $75m	97
LAND 91	Phase 6	Small Arms Life of Type Extension (LOTE)	$50m to $75m	109
SEA 1778	Phase 1	Deployable MCM – Organic Mine Counter Measures	$50m to $75m	135
AIR 5077	Phase 4	Block upgrade for the AEW&C	$30m to $50m	13
AIR 5432	Phase 1	Communications, Navigation, Surveillance/Air Traffic Management	$30m to $50m	28
DEF 7013	Phase 4	Joint Intelligence Support System	$30m to $50m	50
JP 1770	Phase 1	Rapid Environmental Assessment	$30m to $50m	58
JP 2065	Phase 2	Integrated Broadcast System	$30m to $50m	74
JP 2068	Phase 2B	Computer Network Defence	$30m to $50m	76
JP 2076	Phase 1	Psychological Operations Production System	$30m to $50m	82
JP 2080	Phase 3	Defence Management Systems Improvement	$30m to $50m	86
JP 2080	Phase 4	Defence Management Systems Improvement	$30m to $50m	86
JP 2090	Phase 1C	Combined Information Environment	$30m to $50m	91
LAND 58	Phase 3	Weapon Locating Radar Life of Type Extension	$30m to $50m	106
AIR 5276	CAP 1	AP-3C Capability Assurance Program	$20m to $30m	16
JP 66	Phase 1	Replacement for Air Defence Targets	$20m to $30m	52
JP 2069	Phase 2	High Grade Cryptographic Equipment	$20m to $30m	78
LAND 144	Phase 1	Counter Mine Capability	$20m to $30m	119
JP 2065	Phase 3	Integrated Broadcast System	Less than $20m	74
JP 2069	Phase 1B	High Grade Cryptographic Equipment – Secure Telephony	Less than $20m	78
JP 8001	Phase 2C	Headquarters Joint Operational Command – Alternative Headquarters	Less than $20m	99

Proposal Number	Phase	Phase Name	Page
FY 2005/06			
AIR 5376	Phase 3.2C	Hornet Structural Refurbishment Stage 2 – Additional	19
JP 2068	Phase 2B	Computer Network Defence	76
JP 2069	Phase 1B	High Grade Cryptographic Equipment – Secure Telephony	78
JP 2077	Phase 2B	Improved Logistics Information Systems	83
JP 2080	Phase 2B	Defence Management Systems Improvement	86
JP 8001	Phase 2C	Headquarters Joint Operational Command – Alternative Headquarters	99
FY 2006/07			
AIR 5276	Phase 8B	AP-3C Electronic Support Measure – Acquisition	14
AIR 5276	CAP 1	AP- 3C Capability Assurance Program	16
AIR 5376	Phase 2.3C	F/A-18 EWSP – Jammers	19
JP 126	Phase 2	Joint Theatre Distribution System	55
JP 2030	Phase 8	ADF Joint Command Support Environment	62
JP 2048	Phases 4A/4B	Amphibious Ships	67
JP 2089	Phase 2	Tactical Information Exchange Domain (Data Links)	89
JP 2090	Phase 1C	Combined Information Environment	91
LAND 58	Phase 3	Weapon Locating Radar Life of Type Extension	106
LAND 121	Phase 3A	Overlander – Field Vehicles & Trailers	113
LAND 125	Phase 3	Soldier Enhancement Version 2	116
SEA 1428	Phase 4	Evolved Seasparrow Missiles	125
SEA 4000	Phase 3	Air Warfare Destroyer	137
FY 2007/08			
AIR 5405	Phase 1	Replacement Mobile Region Operations Centre	21
AIR 5431	Phase 1	Future Air Traffic Control Surveillance Systems	26
AIR 7000	Phase 1B	Multi-mission Unmanned Aerial Vehicle (MUAV)	33
AIR 8000	Phase 2	Battlefield Airlifter	37
AIR 9000	Phase 7A	Navy Helicopter Training System	44
JP 2008	Phase 3F	Military Satellite Capability	59
JP 2044	Phase 3A	Project Eagle Eye	64
JP 2065	Phase 2	Integrated Broadcast System	74
JP 2072	Phase 2	Battlespace Communications System (Land)	80

Proposal Number	Phase	Phase Name	Page
JP 2077	Phase 2D	Improved Logistics Information Systems	83
JP 2085	Phase 2	Explosive Ordnance Warstock	88
JP 2097	Phase 1	REDFIN – Enhancements to Special Operations Capability	94
JP 2099	Phase 1	Identity Management – Project CERTE	96
JP 5408	Phase 3	ADF Navigation Warfare (NAVWAR) Capability	97
LAND 40	Phase 2	Direct Fire Support Weapon	104
LAND 75	Phase 3.4	Battlefield Command Support System	107
LAND 144	Phase 1	Counter Mine Capability	119
LAND 146	Phase 2	Combat Identification for Land Forces	120

FY 2008/09 to FY 2010/11

AIR 5276	CAP 2	AP- 3C Capability Assurance Program	16
AIR 5416	Phase 4B	C-130J Electronic Warfare Self Protection (EWSP)	23
AIR 5428	Phase 1	Pilot Training System	25
AIR 6000	Phase 2A/2B	New Aerospace Combat Capability	31
AIR 8000	Phase 1	C-130H Refurbishment/ Replacement	37
AIR 9000	Phase 3	Seahawk Mid-life Upgrade and Life Extension	40
AIR 9000	Phase 5B.1	Chinook Mid-Life Upgrade	42
DEF 7013	Phase 4	Joint Intelligence Support System	50
JP 66	Phase 1	Replacement for Air Defence Targets	52
JP 1770	Phase 1	Rapid Environmental Assessment	58
LAND 17	Phase 1	Artillery Replacement	101
LAND 53	Phase 1BR	NINOX – Night Fighting Equipment Replacement	105
LAND 91	Phase 6	Small Arms Life of Type Extension (LOTE)	109
LAND 121	Phase 3B	Overlander – Field Vehicles & Trailers	113
SEA 1439	Phase 5B.2A	Collins Continuous Improvement Program	127
SEA 1439	Phase 6	Collins Sonar Replacement	127
SEA 1442	Phase 4	Maritime Communication & Information Management Architecture Modernisation – Major Capability	130

FY 2009/10 to FY 2011/12

AIR 5276	CAP 3	AP- 3C Capability Assurance Program	16
AIR 5432	Phase 1	Communications, Navigation, Surveillance/Air Traffic Management	28
DEF 224	Phase 3	Force Level Electronic Warfare	48

Proposal Number	Phase	Phase Name	Page
JP 2008	Phase 4	Military Satellite Capability	59
JP 2048	Phase 3	Amphibious Watercraft Replacement	67
JP 2064	Phase 3	Geospatial Information Infrastructure and Services	72
JP 2069	Phase 2	High Grade Cryptographic Equipment	78
JP 2072	Phase 3	Battlespace Communications System (Land)	80
JP 2080	Phase 3	Defence Management Systems Improvement	86
JP 2085	Phase 3	Explosive Ordnance Warstock	88
JP 2089	Phase 3	Tactical Information Exchange Domain (Data Links)	89
LAND 75	Phase 4	Battlefield Command Support System	107
LAND 125	Phase 4	Soldier Enhancement Version 3	116

FY 2010/11 to FY 2012/13

JP 90	Phase 1	ADF Identification Friend or Foe	53
JP 2044	Phase 3B	Project Eagle Eye	64
JP 2047	Phase 3	Wide Area Communications Network Replacement	65
JP 2065	Phase 3	Integrated Broadcast System	74
LAND 112	Phase 4	ASLAV Enhancement	111

FY 2011/12 to 2013/14

AIR 7000	Phase 2B	Maritime Patrol Aircraft	33
JP 2060	Phase 3	ADF Deployable Health Capability	70
JP 2096	Phase 1	Surveillance Enhancement	93
LAND 400	Phase 1	Survivability of Ground Forces	122
SEA 1654	Phase 3	Maritime Operational Support Capability – SUCCESS Replacement	134

FY 2012/13 to 2014/15

JP 2030	Phase 9	ADF Joint Command Support Environment	62
SEA 1439	Phase 5B.2B	Collins Continuous Improvement Program	127
SEA 1778	Phase 1	Deployable MCM – Organic Mine Counter Measures	135

FY 2013/14 to 2015/16

AIR 5438	Phase 1	Lead-in-Fighter Mid-life Upgrade	30
AIR 9000	Phase 7B	Army Helicopter Training System	44
JP 2048	Phase 4C	Strategic Lift Ship Capability	67
JP 2080	Phase 4	Defence Management Systems Improvement	86

Proposal Number	Phase	Phase Name	Page
SEA 1448	Phase 4	ANZAC Air Search and Further Capability Enhancements	132

FY 2014/15 to 2016/17

AIR 6000	Phase 2C	New Aerospace Combat Capability	31

FY 2015/16 to 2017/18

AIR 5077	Phase 4	Block upgrade for the AEW&C	13
AIR 9000	Phase 5B.2	Chinook Mid-Life Upgrade	42
AIR 9000	Phase 8	Anti-Submarine Warfare/Anti-Surface Warfare Helicopter Capability	46
JP 129	Phase 3	Tactical Unmanned Aerial Vehicles (TUAV) – Enhancements/ Upgrades	57
JP 2069	Phase 3	High Grade Cryptographic Equipment	78
JP 2072	Phase 4	Battlespace Communications System (Land)	80
JP 2076	Phase 1	Psychological Operations Production System	82
JP 2078	Phase 2	Hyper-spectral Imaging	85
LAND 19	Phase 7	GBAD – RBS 70 Enhancements or replacement	102
LAND 75	Phase 5	Army Battle Management System	107
LAND 91	Phase 7	Small Arms LOTE – Remainder of the Fleet	109
LAND 146	Phase 3	Combat Identification for Land Forces	120
SEA 1100	Phase 4	Long Range Persistent Subsurface Detection Capability	123

Proposals Contact Officers

AIR 5077	Phase 4	Block upgrade for the AEW&C	**Capability Staff:** Wing Commander Peter Davies (02) 6265 5561	**Defence Materiel Organisation:** Gail Skidmore (02) 6265 6344
AIR 5276	Phase 8B	AP-3C Electronic Support Measure – Acquisition	**Capability Staff:** Squadron Leader Greg Trott (02) 6265 2115	**Defence Materiel Organisation:** Ms Katrina Burzynski (08) 8393 3582
AIR 5276	CAP	AP-3C Capability Assurance Program	**Capability Staff:** Squadron Leader Kevin Beaulne (02) 6265 5447	**Defence Materiel Organisation:** Wing Commander Stephen Watts (02) 6265 5534
AIR 5376	Phase 2.3C	F/A-18 EWSP – Jammers	**Capability Staff:** Wing Commander Robert Chipman (02) 6265 4897	**Defence Materiel Organisation:** Wing Commander Mark French (02) 4928 6904
	Phase 3.2C	Hornet Structural Refurbishment Stage 2 – Additional	Wing Commander Robert Chipman (02) 6265 4897	Wing Commander Ian Nesbitt (02) 4928 6989
AIR 5405	Phase 1	Replacement Mobile Region Operations Centre	**Capability Staff:** Squadron Leader Richard Harrison (02) 6265 2216	**Defence Materiel Organisation:** Mr Geoff Davidson (02) 6265 6291
AIR 5416	Phase 4B	C-130J Electronic Warfare Self Protection (EWSP)	**Capability Staff:** Squadron Leader Cameron Leslie (02) 6265 4444	**Defence Materiel Organisation:** Mr Laurie Bode (02) 6265 1615
AIR 5428	Phase 1	Pilot Training System	**Capability Staff:** Squadron Leader Grant Christensen (02) 6265 5121	**Defence Materiel Organisation:** Wing Commander Stephen Watts (02) 6265 5534
AIR 5431	Phase 1	Future Air Traffic Control Surveillance Systems	**Capability Staff:** Squadron Leader Jason Burstow (02) 6266 7317	**Defence Materiel Organisation:** Wing Commander Stephen Watts (02) 6265 5534

AIR 5432	Phase 1	Communications, Navigation, Surveillance/ Air Traffic Management	**Capability Staff:** Squadron Leader Jason Burstow (02) 6266 7317	**Defence Materiel Organisation:** Wing Commander Stephen Watts (02) 6265 5534
AIR 5438	Phase 1	Lead-in-Fighter Mid-life Update	**Capability Staff:** Wing Commander Robert Chipman (02) 6265 4897	**Defence Materiel Organisation:** Wing Commander Stephen Watts (02) 6265 5534
AIR 6000	Phase 2A/2B	New Aerospace Combat Capability	**Capability Staff:** Group Captain Michael Maher (02) 6265 5537	**Defence Materiel Organisation:** Mr Bill Greenwood (02) 6265 7478
	Phase 2C	New Aerospace Combat Capability		
AIR 7000	Phase 1B	Multi-mission Unmanned Aerial Vehicle (MUAV)	**Capability Staff:** Wing Commander Warren McDonald (02) 6265 4939	**Defence Materiel Organisation:** Wing Commander Colin Thomson (02) 6265 1628
	Phase 2B	Maritime Patrol Aircraft	Wing Commander Kevin Murray (02) 6265 3852	Wing Commander Colin Thomson (02) 6265 1628
AIR 8000	Phase 1	C-130H Refurbishment/Replacement	**Capability Staff:** Squadron Leader Phil Beanland (02) 6265 1073	**Defence Materiel Organisation:** Pieter van Dijk (02) 6265 1180
	Phase 2	Battlefield Airlifter		
AIR 9000		Overview	**Capability Staff:** Colonel Dave Hayes (02) 6265 4301	**Defence Materiel Organisation:** Brigadier Mark Patch (02) 6265 7727
AIR 9000	Phase 3	Seahawk Mid-Life Upgrade and Life Extension	**Capability Staff:** Lieutenant Commander Timothy Bolitho, RAN (02) 6265 3779	**Defence Materiel Organisation:** Mr Robert Miller (02) 6265 7466
AIR 9000	Phase 5B.1	Chinook Mid-Life Upgrade	**Capability Staff:** Major Greg McMillan (02) 6265 2098	**Defence Materiel Organisation:** Major Thorbjorn Johansen (02) 6265 7774
	Phase 5B.2	Chinook Mid-Life Upgrade		

AIR 9000	Phase 7A	Navy Helicopter Training System	**Capability Staff:** Lieutenant Commander Timothy Bolitho, RAN (02) 6265 3779	**Defence Materiel Organisation:** Mr Robert Miller (02) 6265 7466
	Phase 7B	Army Helicopter Training System	Lieutenant Colonel Brendan Dwyer (02) 6265 5519	Major Thorbjorn Johansen (02) 6265 7774
AIR 9000	Phase 8	Anti-Submarine Warfare/Anti-Surface Warfare Helicopter Capability	**Capability Staff:** Commander James Tobin, RAN (02) 6265 6435	**Defence Materiel Organisation:** Mr Robert Miller (02) 6265 7466
DEF 224	Phase 3	Force Level Electronic Warfare	**Capability Staff:** Mr Adrian Dineen (02) 6265 5986	**Defence Materiel Organisation:** Mr Geoff Cropper (02) 6265 4215
DEF 7013	Phase 4	Joint Intelligence Support System	**Capability Staff:** Commander Katja Flaherty, RAN (02) 6265 3489	**Defence Materiel Organisation:** Ms Leanne Purcell (02) 6265 5635
JP 66	Phase 1	Replacement for Air Defence Targets	**Capability Staff:** Squadron Leader David Riddel (02) 6265 3475	**Defence Materiel Organisation:** Mr Rod Warner (02) 6266 7668
JP 90	Phase 1	ADF Identification Friend or Foe	**Capability Staff:** Wing Commander Peter Davies (02) 6265 5561	**Defence Materiel Organisation:** Squadron Leader Anthony Shaw (02) 6266 4602
JP 126	Phase 2	Joint Theatre Distribution System	**Capability Staff:** Major Jacqueline Kopievsky (02) 6265 4934	**Defence Materiel Organisation:** Mr Roger Hyde (03) 9282 4423

JP 129	Phase 3	Tactical Unmanned Aerial Vehicles (TUAV) – Enhancements/ Upgrades	**Capability Staff:** Major Martin Power (02) 6265 5119	
JP 1770	Phase 1	Rapid Environmental Assessment	**Capability Staff:** Commander Tony Withers, RAN (02) 6265 6467 Lieutenant Andrew Shiels, RAN (02) 6265 1119	
JP 2008	Phase 3F	Military Satellite Capability	**Capability Staff:** Lieutenant Colonel Kath Toohey (02) 6265 6502	**Defence Materiel Organisation:** Ms Kylie Swan (02) 6266 7555
	Phase 4	Military Satellite Capability	Lieutenant Colonel Kath Toohey (02) 6265 6502	Mr Greg McKinnon (02) 6265 4155
JP 2030	Phase 8	ADF Joint Command Support Environment	**Capability Staff:** Lieutenant Colonel Rob Gunn (02) 6265 4086	**Defence Materiel Organisation:** Mr Terry Oldfield (02) 6265 7726
	Phase 9	ADF Joint Command Support Environment		
JP 2044	Phase 3A	Project Eagle Eye	**Capability Staff:** Lieutenant Colonel Kevin Rosenbaum (02) 6265 3897	**Defence Materiel Organisation:** Ms Leanne Purcell (02) 6265 5635
	Phase 3B	Project Eagle Eye		
JP 2047	Phase 3	Wide Area Communications Network Replacement	**Capability Staff:** Commander Ian McConachie, RAN (02) 6265 1316	**Chief Information Officer Group:** Mr Claude D'Abrera (02) 6265 8103
JP 2048	Phase 3	Amphibious Watercraft Replacement	**Capability Staff:** Commander Stephen Woodall, RAN (02) 6265 5114	**Defence Materiel Organisation:** Mr Kim Gillis (02) 6265 3316
	Phases 4A/4B	Amphibious Ships		
	Phase 4C	Strategic Lift Ship Capability		

JP 2060	Phase 3	ADF Deployable Health Capability	**Capability Staff:** Major John Salter (02) 6265 2815	**Defence Materiel Organisation:** Mrs Anne Ramsay (03) 9282 6307
JP 2064	Phase 3	Geospatial Information Infrastructure and Services	**Capability Staff:** Lieutenant Colonel Kevin Rosenbaum (02) 6265 3897	**Defence Materiel Organisation:** Ms Leanne Purcell (02) 6265 5635
JP 2065	Phase 2	Integrated Broadcast System	**Capability Staff:** Commander Katja Flaherty, RAN (02) 6265 3489	**Defence Materiel Organisation:** Mr David Cochrane (02) 6265 5774
	Phase 3	Integrated Broadcast System		
JP 2068	Phase 2B	Computer Network Defence	**Capability Staff:** Ms Tina Ormsby (02) 6265 1212	**Chief Information Officer Group –** Mr Claude D'Abrera (02) 6265 8103
JP 2069	Phase 1B	High Grade Cryptographic Equipment – Secure Telephony	**Capability Staff:** Commander Ian McConachie, RAN (02) 6265 1316	**Defence Materiel Organisation:** Mr Steve McGrath (02) 6266 1873
	Phase 2	High Grade Cryptographic Equipment		
	Phase 3	High Grade Cryptographic Equipment		
JP 2072	Phase 2	Battlespace Communications System (Land)	**Capability Staff:** Lieutenant Colonel Kath Toohey (02) 6265 6502	**Defence Materiel Organisation:** Mr Grahame McKinnon (02) 6265 4188
	Phase 3	Battlespace Communications System (Land)		
	Phase 4	Battlespace Communications System (Land)		
JP 2076	Phase 1	Psychological Operations Production System	**Capability Staff:** Lieutenant Colonel Martin Griffiths (02) 6265 3610	
JP 2077	Phase 2B	Improved Logistics Information Systems	**Capability Staff:** Mr Selby Dyer (02) 6265 1003	**Defence Materiel Organisation:** Mr Malcolm McKeith (03) 9256 4049
	Phase 2D	Improved Logistics Information Systems		

JP 2078	Phase 2	Hyper-spectral Imaging	**Capability Staff:** Squadron Leader Damien Farrell (02) 6265 2970	
JP 2080	Phase 2B	Defence Management Systems Improvement	**Capability Staff:** Mr Andrew Pellow (02) 6265 7594	**Chief Finance Officer Group:** Mrs Lorraine Watt (02) 6265 6925 **Chief Information Officer Group:** Mr James Jonklaas (02) 6266 4698
	Phase 3	Defence Management Systems Improvement		
	Phase 4	Defence Management Systems Improvement		
JP 2085	Phase 2	Explosive Ordnance Warstock	**Capability Staff:** Ms Robyn Shephard (02) 6265 3163	**Defence Materiel Organisation:** Mr Wayne Hayward (02) 4737 0536
	Phase 3	Explosive Ordnance Warstock		
JP 2089	Phase 2	Tactical Information Exchange Domain (Data Links)	**Capability Staff:** Commander Ian McConachie, RAN (02) 6265 1316	**Defence Materiel Organisation:** Mr Kevin Pottinger (02) 6266 0722
	Phase 3	Tactical Information Exchange Domain (Data Links)		
JP 2090	Phase 1C	Combined Information Environment	**Capability Staff:** Mr Andrew Tape (02) 6265 7035	**Chief Information Officer Group:** Mr Claude D'Abrera (02) 6265 8103
JP 2096	Phase 1	Surveillance Enhancement	**Capability Staff:** Wing Commander Peter Davis (02) 6265 5561	
JP 2097	Phase 1	REDFIN – Enhancements to Special Operations Capability	**Capability Staff:** Major David Tonna (02) 6265 4643	**Defence Materiel Organisation:** Mr Malcolm Fahey (03) 9282 6019

JP 2099	Phase 1	Identity Management – Project CERTE	**Chief Information Officer Staff:** Mrs Mandy Cramer (02) 6265 6311	
JP 5408	Phase 3	ADF Navigation Warfare (NAVWAR) Capability	**Capability Staff:** Squadron Leader Mick Cawley (02) 6265 2073	**Defence Materiel Organisation:** Wing Commander Stephen Watts (02) 6265 553
JP 8001	Phase 2C	Headquarters Joint Operational Command – Alternative Headquarters	**Capability Staff:** Commander Daniel Gibbons, RAN (02) 6265 5227	**Corporate Support and Infrastructure Group:** Air Commodore Brian (Jack) Plenty (02) 6266 8568
LAND 17	Phase 1	Artillery Replacement	**Capability Staff:** Major Matt Taylor (02) 6265 1734	**Defence Materiel Organisation:** Lieutenant Colonel Steven Hume (03) 9282 5832
LAND 19	Phase 7	GBAD – RBS 70 Enhancements or replacement	**Capability Staff** Major Paul Randall (02) 6265 4441	**Defence Materiel Organisation:** Mr Ross Erickson (03) 9282 4425
LAND 40	Phase 2	Direct Fire Support Weapon	**Capability Staff:** Major Lachlan Mercer (02) 6265 4349	**Defence Materiel Organisation:** Lieutenant Colonel James McRae (03) 9282 6542
LAND 53	Phase 1BR	NINOX – Night Fighting Equipment Replacement	**Capability Staff:** Lieutenant Colonel John Baird (02) 6265 1554	**Defence Materiel Organisation:** Mr Iain Dunn (03) 9282 6059
LAND 58	Phase 3	Weapon Locating Radar Life of Type Extension	**Capability Staff:** Major Paul Randall (02) 6265 4441	**Defence Materiel Organisation:** Lieutenant Colonel Duncan Roach (03) 9282 5380

LAND 75	Phase 3.4	Battlefield Command Support System	**Capability Staff:** Mr Ian Williams (02) 6265 7332	**Defence Materiel Organisation:** Lieutenant Colonel Michael Toohey (02) 6266 7432
	Phase 4	Battlefield Command Support System		
	Phase 5	Army Battle Management System		
LAND 91	Phase 6	Small Arms Life of Type Extension (LOTE)	**Capability Staff:** Major Lachlan Mercer (02) 6265 4349	**Defence Materiel Organisation:** Lieutenant Colonel Stephen Saddington (03) 9282 6441
	Phase 7	Small Arms LOTE – Remainder of the Fleet		
LAND 112	Phase 4	ASLAV Enhancement	**Capability Staff:** Captain Michael Scott (02) 6265 3875	**Defence Materiel Organisation:** Lieutenant Colonel Paul Harris (03) 9282 6322
LAND 121	Phase 3A	Overlander – Field Vehicles & Trailers	**Capability Staff:** Lieutenant Colonel Robin Petersen (02) 6265 2429	**Defence Materiel Organisation:** Brigadier David O'Brien (03) 9282 5186
	Phase 3B	Overlander – Field Vehicles & Trailers		
LAND 125	Phase 3	Soldier Enhancement Version 2	**Capability Staff:** Captain Adam Rankin (02) 6265 2810	**Defence Materiel Organisation:** Lieutenant Colonel Craig Oakley (03) 9282 6486
	Phase 4	Soldier Enhancement Version 3		
LAND 144	Phase 1	Counter Mine Capability	**Capability Staff:** Lieutenant Colonel Steven Salvestro (02) 6265 7875	**Defence Materiel Organisation:** Mr Andrew Blackman (03) 9282 4561
LAND 146	Phase 2	Combat Identification for Land Forces	**Capability Staff:** Squadron Leader Jim Godfrey (02) 6265 1101	**Defence Materiel Organisation:** Mr David Cochrane (02) 6265 5774
	Phase 3	Combat Identification for Land Forces		
LAND 400	Phase 1	Survivability of Ground Forces	**Capability Staff:** Captain Dorian Serfontein (02) 6265 4360	**Defence Materiel Organisation:** Mr John Pluck (03) 9282 4168
SEA 1100	Phase 4	Long Range Persistent Subsurface Detection Capability	**Capability Staff:** Lieutenant Commander Roger Fonhof, RAN (02) 6265 6371	**Defence Materiel Organisation:** Mr Chris Eggleton (03) 9553 1850

SEA 1428	Phase 4	Evolved Seasparrow Missiles	**Capability Staff:** Lieutenant Commander Paul Barrie, RAN (02) 6265 6630	**Defence Materiel Organisation:** Commander Paul Mandziy, RAN (02) 6266 0158
SEA 1439	Phase 5B.2A	Collins Continuous Improvement Program	**Capability Staff:** Commander Andrew Tarpley, RAN (02) 6265 2134	**Defence Materiel Organisation:** Mr Dave Strangward (02) 6265 6443
	Phase 5B.2B	Collins Continuous Improvement Program	Commander Andrew Tarpley, RAN (02) 6265 2134	Mr Dave Strangward (02) 6265 6443
	Phase 6	Collins Sonar Replacement	Commander Andrew Tarpley, RAN (02) 6265 2134	Mr Bob Clark (02) 6266 7051
SEA 1442	Phase 4	Maritime Communication & Information Management Architecture Modernisation – Major Capability	**Capability Staff:** Commander Ian McConachie, RAN (02) 6265 1316	**Defence Materiel Organisation:** Mr Guna Gounder (02) 6265 7862
SEA 1448	Phase 4	ANZAC Air Search and Further Capability Enhancements	**Capability Staff:** Lieutenant Commander Paul Barrie, RAN (02) 6265 6630	**Defence Materiel Organisation:** Mr Chris Eggleton (08) 9553 1850
SEA 1654	Phase 3	Maritime Operational Support Capability – SUCCESS Replacement	**Capability Staff:** Commander Scott Craig, RAN (02) 6265 5913	**Defence Materiel Organisation:** Mr Kim Gillis (02) 6265 3316
SEA 1778	Phase 1	Deployable MCM – Organic Mine Counter Measures	**Capability Staff:** Commander Scott Craig, RAN (02) 6265 5913	**Defence Materiel Organisation:** Mr Sam Yamunarajan (02) 6265 1924
SEA 4000	Phase 3	Air Warfare Destroyer	**Capability Staff:** Captain John Vandyke, RAN (02) 6265 4062	**Defence Materiel Organisation:** Commodore Andrew Cawley, RAN 0417 447 365

Proposals by Australian Industry Opportunities

Proposal Number	Phase	Phase Name	Avionics	Command and Control Systems	Communication Systems	Data Fusion Technologies	Electronic Warfare Systems	Information and Database Management Systems	Photonic Technologies	Propulsion Systems	Radar Technologies	Sensor Systems	Simulation Systems	Software Systems	Space Based Communication	Structures	Surveillance and Reconnaissance Systems	Systems Architecture	Training Aids	Underwater Acoustic Technologies	Weapon Systems	Other	Yet to be Determined
AIR 5077	Phase 4	Block upgrade for the AEW&C																					♦
AIR 5276	Phase 8B	AP-3C Electronic Support Measure - Acquisition	♦				♦	♦				♦	♦						♦				
AIR 5276	CAP 1, 2, 3	AP-3C Capability Assurance Program	♦		♦			♦				♦	♦	♦				♦					
AIR 5376	Phase 2.3C	F/A-18 EWSP – Jammers					♦																
AIR 5376	Phase 3.2C	Hornet Structural Refurbishment Stage 2 - Additional														♦							
AIR 5405	Phase 1	Replacement Mobile Region Operations Centre		♦	♦	♦					♦	♦	♦	♦			♦		♦				
AIR 5416	Phase 4B	C-130J Electronic Warfare Self Protection (EWSP)	♦				♦							♦									
AIR 5428	Phase 1	Pilot Training System																				♦	♦
AIR 5431	Phase 1	Future Air Traffic Control Surveillance Systems			♦						♦	♦	♦	♦			♦		♦				
AIR 5432	Phase 1	Communications, Navigation, Surveillance/ Air Traffic Management	♦		♦	♦		♦					♦				♦		♦			♦	
AIR 5438	Phase 1	Lead-in-Fighter Mid-life Upgrade																					♦
AIR 6000	Phase 2A/2B	New Aerospace Combat Capability																					♦

Proposal Number	Phase	Phase Name	Avionics	Command and Control Systems	Communication Systems	Data Fusion Technologies	Electronic Warfare Systems	Information and Database Management Systems	Photonic Technologies	Propulsion Systems	Radar Technologies	Sensor Systems	Simulation Systems	Software Systems	Space Based Communication	Structures	Surveillance and Reconnaissance Systems	Systems Architecture	Training Aids	Underwater Acoustic Technologies	Weapon Systems	Other	Yet to be Determined
AIR 6000	Phase 2C	New Aerospace Combat Capability																					♦
AIR 7000	Phase 1B	Multi-mission Unmanned Aerial Vehicle (MUAV)	♦	♦	♦	♦		♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦			
AIR 7000	Phase 2B	Maritime Patrol Aircraft	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦		
AIR 8000	Phase 1	C-130H Refurbishment/ Replacement	♦		♦								♦	♦									
AIR 8000	Phase 2	Battlefield Airlifter	♦		♦		♦			♦			♦	♦		♦			♦				
AIR 9000	Phase 3	Seahawk Mid-life Upgrade and Life Extension	♦		♦	♦	♦				♦	♦	♦	♦		♦	♦	♦	♦	♦	♦		
AIR 9000	Phase 5B.1	Chinook Mid-Life Upgrade	♦	♦	♦	♦	♦	♦				♦	♦	♦	♦	♦		♦	♦		♦		
AIR 9000	Phase 5B.2	Chinook Mid-Life Upgrade	♦	♦	♦	♦	♦	♦				♦	♦	♦	♦	♦		♦	♦		♦		
AIR 9000	Phase 7A	Navy Helicopter Training System	♦		♦							♦	♦						♦		♦		
AIR 9000	Phase 7B	Army Helicopter Training System	♦		♦							♦	♦						♦		♦		
AIR 9000	Phase 8	Anti-Submarine Warfare/Anti-Surface Warfare Helicopter Capability	♦	♦	♦	♦	♦	♦				♦	♦		♦	♦		♦	♦		♦		
DEF 224	Phase 3	Force Level Electronic Warfare			♦		♦							♦			♦						
DEF 7013	Phase 4	Joint Intelligence Support System		♦																			
JP 66	Phase 1	Replacement for Air Defence Targets			♦		♦			♦	♦					♦							

Proposal Number	Phase	Phase Name	Avionics	Command and Control Systems	Communication Systems	Data Fusion Technologies	Electronic Warfare Systems	Information and Database Management Systems	Photonic Technologies	Propulsion Systems	Radar Technologies	Sensor Systems	Simulation Systems	Software Systems	Space Based Communication	Structures	Surveillance and Reconnaissance Systems	Systems Architecture	Training Aids	Underwater Acoustic Technologies	Weapon Systems	Other	Yet to be Determined
JP 90	Phase 1	ADF Identification Friend or Foe	♦		♦	♦																	
JP 126	Phase 2	Joint Theatre Distribution System																				♦	
JP 129	Phase 3	Tactical Unmanned Aerial Vehicles (TUAV) - Enhancements/ Upgrades																					♦
JP 1770	Phase 1	Rapid Environmental Assessment																					♦
JP 2008	Phase 3F	Military Satellite Capability			♦									♦									
JP 2008	Phase 4	Military Satellite Capability			♦										♦								
JP 2030	Phase 8	ADF Joint Command Support Environment		♦														♦					
JP 2030	Phase 9	ADF Joint Command Support Environment		♦														♦					
JP 2044	Phase 3A	Project Eagle Eye						♦															
JP 2044	Phase 3B	Project Eagle Eye						♦															
JP 2047	Phase 3	Wide Area Communications Network Replacement			♦									♦				♦				♦	
JP 2048	Phase 3	Amphibious Watercraft Replacement			♦					♦			♦			♦			♦				
JP 2048	Phases 4A/4B	Amphibious Ships		♦	♦		♦			♦	♦	♦	♦	♦		♦		♦	♦		♦		
JP 2048	Phase 4C	Strategic Lift Ship Capability			♦					♦	♦					♦			♦				

Proposal Number	Phase	Phase Name	Avionics	Command and Control Systems	Communication Systems	Data Fusion Technologies	Electronic Warfare Systems	Information and Database Management Systems	Photonic Technologies	Propulsion Systems	Radar Technologies	Sensor Systems	Simulation Systems	Software Systems	Space Based Communication	Structures	Surveillance and Reconnaissance Systems	Systems Architecture	Training Aids	Underwater Acoustic Technologies	Weapon Systems	Other	Yet to be Determined
JP 2060	Phase 3	ADF Deployable Health Capability																				♦	
JP 2064	Phase 3	Geospatial Information Infrastructure and Services				♦		♦						♦				♦					
JP 2065	Phase 2	Integrated Broadcast System			♦			♦							♦								
JP 2065	Phase 3	Integrated Broadcast System			♦			♦							♦								
JP 2068	Phase 2B	Computer Network Defence			♦									♦				♦					
JP 2069	Phase 1B	High Grade Cryptographic Equipment – Secure Telephony			♦																	♦	
JP 2069	Phase 2	High Grade Cryptographic Equipment			♦																	♦	
JP 2069	Phase 3	High Grade Cryptographic Equipment			♦																	♦	
JP 2072	Phase 2	Battlespace Communications System (Land)		♦																			
JP 2072	Phase 3	Battlespace Communications System (Land)		♦																			
JP 2072	Phase 4	Battlespace Communications System (Land)		♦																			
JP 2076	Phase 1	Psychological Operations Production System																					♦
JP 2077	Phase 2B	Improved Logistics Information Systems						♦															
JP 2077	Phase 2D	Improved Logistics Information Systems						♦															

Proposal Number	Phase	Phase Name	Avionics	Command and Control Systems	Communication Systems	Data Fusion Technologies	Electronic Warfare Systems	Information and Database Management Systems	Photonic Technologies	Propulsion Systems	Radar Technologies	Sensor Systems	Simulation Systems	Software Systems	Space Based Communication	Structures	Surveillance and Reconnaissance Systems	Systems Architecture	Training Aids	Underwater Acoustic Technologies	Weapon Systems	Other	Yet to be Determined
JP 2078	Phase 2	Hyper-Spectral Imaging																					♦
JP 2080	Phase 2B	Defence Management Systems Improvement						♦						♦									
JP 2080	Phase 3	Defence Management Systems Improvement						♦						♦									
JP 2080	Phase 4	Defence Management Systems Improvement						♦						♦									
JP 2085	Phase 2	Explosive Ordnance Warstock																				♦	
JP 2085	Phase 3	Explosive Ordnance Warstock																				♦	
JP 2089	Phase 2	Tactical Information Exchange Domain (Data Links)		♦	♦			♦														♦	
JP 2089	Phase 3	Tactical Information Exchange Domain (Data Links)		♦	♦			♦														♦	
JP 2090	Phase 1C	Combined Information Environment			♦									♦								♦	
JP 2096	Phase 1	Surveillance Enhancement																					♦
JP 2097	Phase 1	REDFIN - Enhancements to Special Operations Capability		♦	♦			♦			♦				♦		♦				♦	♦	
JP 2099	Phase 1	Identity Management - Project CERTE																					♦
JP 5408	Phase 3	ADF Navigation Warfare (NAVWAR) Capability					♦															♦	

Proposal Number	Phase	Phase Name	Avionics	Command and Control Systems	Communication Systems	Data Fusion Technologies	Electronic Warfare Systems	Information and Database Management Systems	Photonic Technologies	Propulsion Systems	Radar Technologies	Sensor Systems	Simulation Systems	Software Systems	Space Based Communication	Structures	Surveillance and Reconnaissance Systems	Systems Architecture	Training Aids	Underwater Acoustic Technologies	Weapon Systems	Other	Yet to be Determined
JP 8001	Phase 2C	Headquarters Joint Operational Command - Alternative Headquarters																					♦
LAND 17	Phase 1	Artillery Replacement		♦	♦								♦								♦		
LAND 19	Phase 7	GBAD - RBS 70 Enhancements or Replacement		♦	♦								♦								♦		
LAND 40	Phase 2	Direct Fire Support Weapon											♦						♦		♦		
LAND 53	Phase 1BR	NINOX - Night Fighting Equipment Replacement				♦			♦			♦					♦						
LAND 58	Phase 3	Weapon Locating Radar Life of Type Extension									♦		♦				♦		♦				
LAND 75	Phase 3.4	Battlefield Command Support System		♦				♦					♦						♦				
LAND 75	Phase 4	Battlefield Command Support System		♦																			
LAND 75	Phase 5	Army Battle Management System		♦																			
LAND 91	Phase 6	Small Arms Life of Type Extension (LOTE)																			♦		
LAND 91	Phase 7	Small Arms LOTE – Remainder of the Fleet																			♦		
LAND 112	Phase 4	ASLAV Enhancement																♦				♦	
LAND 121	Phase 3A	Overlander - Field Vehicles & Trailers																					♦
LAND 121	Phase 3B	Overlander - Field Vehicles & Trailers																					♦

Proposal Number	Phase	Phase Name	Avionics	Command and Control Systems	Communication Systems	Data Fusion Technologies	Electronic Warfare Systems	Information and Database Management Systems	Photonic Technologies	Propulsion Systems	Radar Technologies	Sensor Systems	Simulation Systems	Software Systems	Space Based Communication	Structures	Surveillance and Reconnaissance Systems	Systems Architecture	Training Aids	Underwater Acoustic Technologies	Weapon Systems	Other	Yet to be Determined
LAND 125	Phase 3	Soldier Enhancement Version 2		♦	♦							♦		♦				♦			♦		
LAND 125	Phase 4	Soldier Enhancement Version 3		♦	♦	♦						♦		♦					♦				
LAND 144	Phase 1	Counter Mine Capability																				♦	
LAND 146	Phase 2	Combat Identification for Land Forces		♦	♦	♦		♦				♦	♦	♦			♦						
LAND 146	Phase 3	Combat Identification for Land Forces																					♦
LAND 400	Phase 1	Survivability of Ground Forces																					♦
SEA 1100	Phase 4	Long Range Persistent Subsurface Detection Capability																		♦			
SEA 1428	Phase 4	Evolved Seasparrow Missiles																			♦		
SEA 1439	Phase 5B.2A	Collins Continuous Improvement Program			♦							♦				♦							
SEA 1439	Phase 5B.2B	Collins Continuous Improvement Program			♦							♦				♦							
SEA 1439	Phase 6	Collins Sonar Replacement				♦		♦				♦		♦				♦	♦	♦		♦	
SEA 1442	Phase 4	Maritime Communication & Information Management Architecture Modernisation - Major Capability			♦									♦				♦	♦			♦	
SEA 1448	Phase 4	ANZAC Air Search and Further Capability Enhancements									♦												

Proposal Number	Phase	Phase Name	Avionics	Command and Control Systems	Communication Systems	Data Fusion Technologies	Electronic Warfare Systems	Information and Database Management Systems	Photonic Technologies	Propulsion Systems	Radar Technologies	Sensor Systems	Simulation Systems	Software Systems	Space Based Communication	Structures	Surveillance and Reconnaissance Systems	Systems Architecture	Training Aids	Underwater Acoustic Technologies	Weapon Systems	Other	Yet to be Determined
SEA 1654	Phase 3	Maritime Operational Support Capability - SUCCESS Replacement			◆					◆	◆					◆			◆				
SEA 1778	Phase 1	Deployable MCM - Organic Mine Counter Measures		◆						◆		◆		◆			◆		◆	◆			
SEA 4000	Phase 3	Air Warfare Destroyer				◆	◆	◆	◆	◆	◆	◆	◆	◆					◆				

FOR INFORMATION VISIT THE DEFENCE MATERIEL ORGANISATION WEBSITE
http://www.defence.gov.au/dmo

PUBLISHED BY THE DEFENCE CAPABILITY DEVELOPMENT GROUP AND THE DEFENCE MATERIEL ORGANISATION

DPSMAR037/06