Equipment Acquisitions

A ready-reference snapshot of more than 40 new and forecast Australian Defence Force equipment acquisition projects as contained in the 2016 Defence White Paper.

FUNDED TO THE tune of AUD$195 billion over the next 10 years, the long-anticipated 2016 Defence White Paper (DWP) finally provided industry with some procurement clarity going forward and alignment of Defence’s strategy, capability and resources, in some cases out to 2035.

In terms of capability and the corresponding equipment procurement projects designed to deliver those capabilities, the Australian Defence Force (ADF) is to be equipped with the means to undertake high-end warfighting operations in the near region and afar, contribute meaningfully to coalition operations on land, in the air and at sea as well as defend mainland Australia and its offshore interests.

The DWP claims that the future ADF will be “more capable, agile and potent”, and able to “apply more force more rapidly and more effectively when required”. This is borne out in a number of forecast capability and equipment acquisitions.

In the air domain, the additional P-8A Poseidon maritime patrol and strike aircraft will increase available airframe numbers and bring the ability to prosecute more maritime targets during missions at the far right of the operational spectrum.

Confirmation also of the purchase of a small number of armed medium-altitude unmanned aerial vehicles (UAV) to undertake precision air strikes and add to the land and littoral intelligence, surveillance and reconnaissance picture.

It would appear that a mixed fleet of F/A-18F Super Hornets and F-35A Lightning II Joint Strike Fighters will make up the Royal Australian Air Force’s (RAAF) air combat capability out to around 2030 and perhaps beyond.

Additional KC-30A Multi-Role Tanker Transports and possibly C-17A Globemaster II heavy airlifters are expected to be on the shopping list post-2020.

For the Royal Australian Navy (RAN), a dozen Future Submarines will eventually replace the still excellent Collins-class, although the first of the new boats won’t hit the water until the early 2030s. To keep the Collins-class fleet operationally relevant, upgrades and service life extensions are planned.

Nine Future Frigates will take over from the eight ANZAC-class, restoring the RAN’s major surface combatant numbers to a very satisfactory 12 ships. The new frigates will be biased toward anti-submarine warfare (ASW) operations, although a balanced mix of offensive and defensive capabilities can be expected.

It appears the original intent of Sea 1180 – a common and modular hull and systems for the Armidale-class patrol boat, Huon-class minehunters and hydrographic ships successors – has been shelved in favour of 12 offshore patrol vessels (OPV) built to a proven and specialised design. This would appear to be a sensible and low-risk approach. The brief description of the new OPV also hints that capability emphasis will be on the patrol and surveillance mission sets, rather than a mini-warfighting role. Unlike several previous Government statements about the OPV project, no mention was made of “corvettes”.

Surface combatant and OPV alike will benefit from the use of embarked UAVs, four out of the six Huon-class vessels are to be upgraded and their life extended; the two Canberra-class landing helicopter dock amphibious assault ships and the sealift ship HMAS Choules will receive sensor, systems and self-defence armament suite upgrades.

The lack of a replacement for the recently decommissioned Balikpapan-class landing craft heavy is notable, and leaves both a serious capability gap for the ADF and reduced operational flexibility.

New Combat Reconnaissance Vehicles and Infantry Fighting Vehicles for the Australian Army were confirmed as incoming via Land 400, although numbers of either type were not confirmed.

Upgrades to the M1A1 Abrams main battle tank fleet are listed, but acquisition of additional tanks for realisation of Plan Beersheba was not.

The in-service RKS-70 man-portable short-range air defence system is to be replaced and Army will get back a medium-range air defence missile system through Land 19 Phase 7B, a capability long unremembered since retirement of the Rapier surface-to-air missile system years ago.

A long-range artillery rocket system will provide precision fires out to 300km and complement the conventional M-777A2 155mm towed howitzer.

Patience has obviously worn thin with the Tiger armed reconnaissance helicopter’s achievable rate of effort and a replacement will be found within the next decade. On a more positive note, Special Operations Command will welcome a new, albeit small fleet of light special forces helicopters to partially offset the capability lost with retirement of the Holsworthy-based S-70A-9 Black Hawk squadron around the end of the decade.

Whilst a water borne platform, Army will get to own and operate a number of riverine patrol craft suited to working in estuarine and littoral environments.

Somewhat unexpectedly, a deployable land-based anti-ship missile system will be acquired to support deployed force operations and enforce a keep-out zone around vital offshore assets such as oil and natural gas platforms.

DTJR will be sure to detail many of these new and upcoming projects in forthcoming issues as they mature and relevant news comes to light.
Air Platforms

THE ADF MUST BE PREPARED TO CARRY OUT OFFENSIVE STRIKE OPERATIONS AGAINST THE MILITARY BASES AND IN-TRANSIT FORCES OF A POTENTIAL ADVISORY. IT WILL ACHIEVE THIS THROUGH STRATEGIC STRIKE CAPABILITIES, INCLUDING AIR STRIKE AND SPECIAL OPERATIONS CAPABILITIES. MORE POTENT STRIKE CAPABILITIES ALLOW AUSTRALIA FLEXIBILITY IN RAPIDLY RESPONDING TO THREATS AGAINST AUSTRALIA AND PROVIDING MILITARY CONTRIBUTIONS TO COALITION OPERATIONS IN OUR REGION AND GLOBALLY.

— 2016 Defence White Paper, page 95

MARITIME PATROL & STRIKE AIRCRAFT
An additional seven P-8A Poseidon maritime patrol and strike aircraft will be acquired in two tranches, with delivery in the late 2020s. These will join the initial buy of eight P-8A aircraft to enter service in the early 2020s and bring the total fleet size to 15 aircraft.

- 7 Late 2020s

LONG-ENDURANCE MARITIME UAV
Confirmation of the acquisition of seven MQ-4C Triton high-altitude long endurance unmanned aerial vehicles (UAV) by the early 2020s.

- 7 Early 2020s

WEAPONISED UAV
A fleet of armed medium-altitude UAVs will be acquired to provide enhanced firepower and intelligence, surveillance and reconnaissance capabilities (ISR) to support a range of missions including counter-terrorism missions overseas, while also augmenting the ADF’s surveillance capability for search and rescue, humanitarian assistance and disaster relief and other tasks.

- 4-6 (estimate) Early 2020s

NAVAL COMBAT HELICOPTERS
Delivery and acceptance into service of 24 MH-60R Seahawk naval combat helicopters continues.

- 24 Deliveries underway

ELECTRONIC ATTACK AIRCRAFT
Acquisition of 12 EA-18G Growler electronic attack aircraft proceeding, with entry into service slated for 2018.

- 12 2018

COMBAT AIRCRAFT
A total of 72 F-35A Lightning II Joint Strike Fighters (JSF) will begin replacing the F/A-18A/B Classic Hornets from 2020. Options to replace the F/A-18F Super Hornets in the late 2020s will be considered early next decade in light of developments in technology and the strategic environment and will be informed by the RAAF’s experience in operating the JSF.

- 72 2020

Our engineers and technicians are proud to be part of the team that developed the Jindalee Operational Radar Network. We know long range HF surveillance technology.

As a trusted partner for 35 years, BAE Systems continues to advance this strategically important radar system that helps protect Australia’s vast northern borders.

www.baesystems.com/australia
AIR-TO-AIR REFUELLER
Two additional KC-30A Multi Role Tanker Transports will enter service by 2020, with consideration to be given to the follow-on acquisition of a further two aircraft to enlarge the KC-30A fleet to nine. This would enable more available airframes to support the new P-8A Poseidon fleet.

2020

2020

STRIKE WEAPONS
A series of new air-to-surface, air-to-air and high-speed and long-range strike and anti-ship weapons will be acquired for the strike and air combat capability.

Unknown

C-130J-30 UPGRADE
The fleet of C-130J-30 Hercules medium transport aircraft will be upgraded to ensure continued role effectiveness.

12

2020+

AERO-MEDICAL EVACUATION
Army’s CH-47F Chinook helicopter fleet will be upgraded to provide a measure of aero-medical evacuation capability. Options to provide the ADF with a dedicated, long-range combat search and rescue capability will be explored in the longer term.

10 (estimate)

Around 2020

GROUND-BASED RADARS
Ground-based active electronically scanned array radars will be acquired to expand the ADF’s access to air and space situational awareness information, including through space-based systems.

<5 (estimates)

Around 2020

AIR DEFENCE NETWORK UPGRADE
The ADF’s existing Vigilare air defence surveillance system, including command, control and communications systems, sensors and targeting systems, will be upgraded. An enhanced Vigilare air defence network could be used as a foundation for development of deployable, in-theatre missile defence capabilities should future strategic circumstances require it.

AERIAL PLATFORMS

THE DOUBLING IN SIZE OF THE SUBMARINE FLEET RECOGNISES THAT AUSTRALIA WILL FACE A MORE CHALLENGING MARITIME ENVIRONMENT IN THE DECADES AHEAD. BY 2035, AROUND HALF OF THE WORLD’S SUBMARINES WILL BE OPERATING IN THE INDO-PACIFIC REGION WHERE AUSTRALIA’S INTERESTS ARE MOST ENGAGED. AUSTRALIA HAS ONE OF THE LARGEST MARITIME DOMAINS IN THE WORLD AND WE NEED THE CAPACITY TO DEFEND AND FURTHER OUR INTERESTS FROM THE PACIFIC TO THE INDIAN OCEANS AND FROM THE AREAS TO OUR NORTH TO THE SOUTHERN OCEAN. SUBMARINES ARE A POWERFUL INSTRUMENT FOR DETERRING CONFLICT AND A POTENT WEAPON SHOULD CONFLICT OCCUR.

SUBMARINES
Confirmation that the RAN’s submarine force will double in size, with 12 boats to replace the Collins-class. Sea 1000 acquisition activities are scheduled to commence in earnest in late 2016 following the culmination of the Competitive Evaluation Process. The first new submarine will not enter service until the early 2030s.

Early 2030s

AIR WARFARE DESTROYERS
The three 7,000 tonne Hobart-class Air Warfare Destroyers will enter service in the early 2020s, with the first ship launched in May 2015.

3

Hobart to be delivered in June 2017, Brisbane in September 2018 and Sydney by March 2020

JORN UPGRADE
An upgrade is planned for the Jindalee Operational Radar Network (JORN) under Air 2025 Phase 6 that will keep pace with technological advancements in the area of over-the-horizon-radar (OTHR). Phase 6 will also leverage off indigenous OTHR research and development to address sustainability issues and incorporate new and emerging technologies in the JORN.

3

Phase 6 Initial Operational Capability planned for 2018-2021

DEFENCE WHITE PAPER 2016

Maritime Platforms

– 2016 Defence White Paper, page 90

BATTLEFIELD AIRLIFTERS
Ten C-27J Spartan battlefield airlifters are currently being introduced into service. The C-27J will enhance the capacity to move personnel and small cargos to remote locations using shorter landing strips not suitable for larger fixed-wing military aircraft in ADF service.

10

Delivery commenced 2015

JORN UPGRADE
An upgrade is planned for the Jindalee Operational Radar Network (JORN) under Air 2025 Phase 6 that will keep pace with technological advancements in the area of over-the-horizon-radar (OTHR). Phase 6 will also leverage off indigenous OTHR research and development to address sustainability issues and incorporate new and emerging technologies in the JORN.

3

Phase 6 Initial Operational Capability planned for 2018-2021

DEFENCE WHITE PAPER 2016
FUTURE FRIGATES
Nine Future Frigates (Sea 5000) will replace the eight ANZAC-class frigates from the late 2020s, with construction to begin in 2020. Ship design and systems will be biased toward ASW. A continuous build approach to construction and capability delivery will be adopted.

Collins-class upgrades
To maintain an operationally viable submarine force until the introduction of the Future Submarine in the early 2030s, high priority capability enhancements will be made to the Collins-class fleet, including upgrades to the communications and sensor systems. Further investment will also be made in Collin-class obsolescence management and fleet sustainment activities.

Offshore patrol vessels
Twelve offshore patrol vessels (OPV) will be constructed in Australia under a continuous build program to replace the 13 Armidale-class patrol boats (ACPB). Compared to the 57m ACPB, the OPVs will be larger, have greater range and endurance, capacity and capable of undertaking several different roles across the border protection and patrol mission spectrum.

Minehunter upgrade
Rather than seek a replacement for the RAN’s coastal minehunter fleet with a vessel that shares a common hull with the OPV as originally envisaged under Sea 1180, four Huon-class vessels will be updated to counter the modern maritime mine threat. New mine countermeasures (MCM) technologies will also be developed. The four Huon-class vessels will undergo a life-of-type extension, in all likelihood delaying the need for a replacement MCM vessel until at least 2030.

LHD enhancements
With the second Canberra-class landing helicopter dock (LHD) amphibious assault ship commissioned into the RAN in December 2016, further investment in improved sensors, countermeasures and self-defence weapons is planned.

Shipborne UAV
A short-range maritime tactical UAV is to be acquired to improve the surveillance picture and situational awareness of in-service and future surface ships such as the AWD, Future Frigate and OPV.

Underway replenishment ships
The acquisition of two foreign-built underway replenishment ships (auxiliary oiler replenishment; AOR) to replace HMAS Ships Success and Sirius is well advanced, with a source selection announcement expected this year. A third AOR or logistics support vessel will be acquired next decade.

SOLDIERS IN THE FUTURE ARMY WILL BE SUPPORTED BY NEW VEHICLES AND MANNED AND UNMANNED AIRCRAFT WITH INCREASED FIREPOWER, PROTECTION, MOBILITY, SITUATIONAL AWARENESS AND LOGISTICS SUPPORT.

SOLDIER SYSTEMS
New weapons to be acquired include service rifles (EF88), new handguns, direct fire support weapons (including those used against armoured vehicles, bunkers and fortified/hardened positions), and in-direct fire support weapons such as 81mm mortars. Funding also allocated for continual procurement of soldier personal equipment and kit, sights, digital communications systems, body armour, night vision systems and self-protection gear (including chemical, biological and radiological protective clothing to be acquired under Joint Project 2110).

Army-wide
2016 onwards

RIVERINE CRAFT
A riverine patrol capability will be re-established through a fleet of lightly armed, shallow-draft boats to enable operations in estuarine and littoral environments. Compatibility with the well decks of the RAN’s Canberra-class LHDs and HMAS Choules will be essential. Craft likely to be Army owned and manned.

MINEHUNTER UPGRADE

COLLINS-CLASS UPGRADES

SOLDIER SYSTEMS

LAND SYSTEMS

DEFENCE WHITE PAPER 2016

REFORMS AND INVESTMENT IN INFRASTRUCTURE

DEFENCE TECHNOLOGY REVIEW | MAR 2016

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DEFENCE WHITE PAPER 2016
### SHORT-RANGE AIR DEFENCE SYSTEM
A new short-range man-portable air defence system (MANPADS) for mobile ground forces will be acquired to replace the in-service RBS-70 MANPADS.

- **20+ launchers**
  - Early 2020s

### MEDIUM-RANGE AIR DEFENCE SYSTEM
An advanced tactical, medium-range ground-based air defence system will be acquired via Land 19 Phase 7B to provide protection for valuable assets such as deployed airfields and command centres against a wide range of aerial threats. Likely to be vehicle or trailer-mounted for improved self-deployability and operational mobility.

- **2017 onwards**
  - Mid-late 2020s

### COMMUNICATIONS
New deployable land communication networks, including satellite and terrestrial communications, will be acquired for both special forces and the wider Army to maintain leading-edge communications capabilities for future operations.

- **Army-wide**
  - 2017 onwards (estimate)

### COMBAT RECONNAISSANCE VEHICLES
Acknowledgement of the acquisition of combat reconnaissance vehicles to replace the ASLAV 8x8 under Phase 2 of Land 400.

- **225**
  - Early 2020s

### INFANTRY FIGHTING VEHICLES
Acknowledgement of the acquisition of infantry fighting vehicles to replace the M113AS3/4 family of tracked vehicles under Phase 3 of Land 400.

- **450**
  - Mid 2020s

### MANOEUVRE SUPPORT VEHICLES
Acknowledgement of the acquisition of Manoeuvre Support Vehicles (combat engineering vehicles) under Phase 3 of Land 400.

- **12-18**
  - Mid-late 2020s

### MBT UPGRADE
Intention announced to upgrade the M1A1 Abrams main battle tank (MBT) fleet. However, no mention of procurement of additional tanks to flesh out MBT numbers under Plan Beersheba.

- **41-59**
  - Around 2020

### TACTICAL UAV
A new small UAV will be procured to provide enhanced real-time ISR support to tactical land force commanders.

- **15**
  - Unknown

### PROTECTED MOBILITY VEHICLE - LIGHT
Army’s remaining Land Rover 4x4/6x6 logistics vehicles will be replaced by the locally-produced Hawkei to fulfil the Protected Mobility Vehicle – Light requirement under Phase 3 of Land 121.

- **1,100 plus**
  - Mid 2020s

### MEDIUM-RANGE ROCKET SYSTEM
A deployable land-based ASM system will be acquired to provide precision fires out to a range of 300km in support of deployed land forces. System would operate well behind the forward edge of battle area and likely be truck or trailer-mounted to improve operational mobility.

- **1,000**
  - More than 1,100 plus

### SPECIAL OPERATIONS HELICOPTER, LIGHT
A light helicopter customised for special operations missions will be procured to support the 2nd Commando Regiment and Special Air Service Regiment. These helicopters will be deployable in C-17 heavy airlifters and capable of insertion/extraction and provision of fire support for small special forces teams undertaking tasks such as tactical observation, counter-terrorism and hostage rescue.

- **6-10**
  - Later this decade/ early 2020s

### MRH90 UPGRADE
Role specific upgrades to the MRH-90 troop lift helicopter will be implemented to enable it to more effectively support domestic counter-terrorism operations in view of the pending retirement of the S-70A-9 Black Hawk helicopter around 2019-2020.

- **6-12**
  - Around 2020

### LONG-RANGE ROCKET SYSTEM
A mobile and deployable long-range rocket system will be acquired to provide precision fires out to a range of 300km in support of deployed land forces. System would operate well behind the forward edge of battle area and likely be truck or trailer-mounted to improve operational mobility.

- **12-18**
  - (estimate)

### SPECIAL SUPPLEMENT

#### TIGER ARH REPLACEMENT
A replacement for the Tiger Armed Reconnaissance Helicopter will be introduced around the middle of next decade. Options include another manned helicopter, unmanned systems or a combination of both, depending on technological developments and the maturity of foreign rotary-wing programs, particularly in the US.

- **20+ (estimate)**
  - Unknown

#### BUSHMASTER REPLACEMENT
A replacement for the in-service Bushmaster protected mobility vehicle will be introduced from around 2025.

- **500+ (estimate)**
  - 2025

#### ANTI-SHIP MISSILES
A deployable land-based ASM system will be acquired to support deployed force operations and protect vital offshore assets such as oil and natural gas platforms. This would imply a truck-mounted system to provide the required measure of operational mobility and self-deployability, including embarkation on the Canberra-class LHDs.

- **6-18**
  - Unknown