

PREMIUM EDITION

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10 May 2012 • Issue 204

RAAF to get 10 C-27Js

Minister for Defence Stephen Smith and Minister for Defence Materiel Jason Clare announced at the 2012 Air Power Conference that the Government has agreed to purchase 10 Alenia C-27J Spartan Battlefield Airlift aircraft at a cost of \$1.4 billion through a Foreign Military Sales (FMS) agreement.

Smith said that the C-27J was assessed by Defence as the aircraft which best met all the essential capability requirements and provides the best value for money.

"It [C-27J] was assessed as being able to fly further, faster and higher while carrying more cargo and requiring a smaller runway than the other aircraft under consideration," he said.

"The C-27J has the capacity to carry significant load and still access small, soft, narrow runways that are too short for the C-130J or runways which are unable to sustain repeated use of larger aircraft.

"In Australia, the C-27J can access over 1900 airfields compared to around 500 for the C-130 Hercules aircraft."

The first aircraft are expected to be delivered in 2015 with the Initial Operating Capability scheduled for the end of 2016.

Initial logistic support, including training for aircrew and maintenance personnel will be provided through the FMS program, utilising the system that has been established in the US.

Defence will also seek a separate agreement with C-27J manufacturer, Alenia, in order to ensure that RAAF can operate, maintain and modify the aircraft throughout its planned life.

The 10 C-27Js will be based at RAAF Base Richmond.

With the Government announcing the retirement of the C-130H fleet in this week's budget, Chief of Air Force, Air Marshal Geoff Brown visited the Richmond base to confirm to the 170 employees who worked on the C-130H that their roles would be transferred to the Spartan program without the loss of any jobs.

Defence Budget 2012/13: Project deferrals underpin spending cuts

Of the 180 programs that were outlined in the 2009-2019 DCP, the budget this year has seen ten removed, as part of the cuts to the Defence budget of \$5.454 billion over four years.

Exact details of these removals will be revealed when the new DCP is released later this year, though some have already been announced in the pre-Budget chatter.

It will also have a long list of re-scoping and deferrals including:

- the cancellation of the self propelled element of Land 17 where the requirement will now be fulfilled by the purchase of more towed M777s;
- a two-year delay to the first three squadrons of Joint Strike Fighters (JSF) under stage 1 (Air 6000 Phase 2A/2B) and a one year delay to the fourth squadron (Air 6000 Phase 2C);
- a one year delay to the new P-8As, the Maritime Patrol Aircraft under Air 7000 Phase 2B which will replace the Orions;
- a one year delay to the Pilot Training System under Air 5428;
- a one year delay to the vehicles under Land 400;
- removal of the final tranche of Phase 8 of the Joint Command Support Environment under JP 2030 Phase 8;
- a reduced scope and one year delay of the defence simulation program under JP3028;
- a reduced provision for high grade cryptographic equipment under JP2069 Phase 3;
- cancelling of Round 16 of the Capability Demonstrator Program (a Defence spokesperson could not comment on the future of the program for either Capability Development Group or the Defence Science and Technology Organisation nor point to specific details in the budget papers pertaining to the program during the Budget lockup);
- a one year delay to the Air Combat Officer Training System under Air 5232;
- a one year delay to the replacement mobile regional operations centre under Air 5405;
- a one year delay to the upgrade of the digital topographical systems under JP 2044;
- a two year delay to Phase 1 of the Enterprise Content Management under JP 1544;
- a one year delay to Phase 2 of the Enterprise Content Management under JP 1544;

- a one year delay to the Tactical Unmanned Aerial Vehicle under Phase 3 of JP 129;
- a one year delay to the replacement refuelling tucks under JP157;
- a one year delay to the integrated broadcast service under JP2065 under Phased 2 and 3;
- a one year delay to non-lethal weapons under JP 3011 Phase 1; and
- a one year delay to the maritime communication modernisation under Sea 1442 Phase 5.

The flow on effects from these changes will not happen today nor probably even tomorrow, but they will happen. For more on this issue, stay tuned for the **June edition of ADM** where the full budget coverage will look at the big picture in more depth.

Defence Budget 2012/13: Infrastructure Plan continues

While defence infrastructure spending has taken a \$1.2 billion hit over the coming four years, there are still plenty of projects on the go and still to be approved.

Building for the Enhanced Land Force and Hardened Networked Army continues around the nation with sites at Singleton, Enoggera, Kapooka, Amberley, Puckapunyal and many more all continuing apace.

Support for various new capabilities are also on the cards for heavy airlift, the M777 towed artillery and trucks under Project Overlander and many more.

Breaking the figures down state by state for this coming financial year:

NSW - \$133.9 million

Victoria - \$73 million

Queensland - \$346.9 million

South Australia - \$45.9 million

Western Australia - \$7.6 million

Tasmania - \$9.9 million

Northern Territory - \$39.2 million

ACT - \$155.1 million

The Defence White Paper is dead: Long live the White Paper

Had the government not announced that a new Defence White Paper was in the offing sooner rather than later, last night's budget would have come as a shock.

The 2009 White Paper of Force 2030 exists now only in name.

The 'core capabilities' outlined in the document (12 future submarines, the JSF, Caribou replacement, medium and heavy trucks, upgrades to the C-130Js, Orions and Anzac class ships, consideration of the Growler, LHD, and AWD) will still come to pass but there are massive cuts in the years ahead.

In pursuit of the government's quest for the political gold of a surplus this year, Defence will be cutting \$5.454 billion over the coming four years.

As Mark Thomson of the Australian Strategic Policy Institute points out, this is a 10 per cent cut in real terms year on year - the largest cut in Defence spending since 1953 to be exact.

These cuts will come from:

- \$1.3 billion by rescheduling, rescoping or cancelling projects' already approved by government,
- \$1.7 in rescheduling, rescoping or cancelling projects' not yet approved by government,
- \$1.2 billion from major capital facilities programs,
- \$483 million in administrative costs,
- \$360 million from 1,000 job cuts from the Public Service,
- \$251 million from the early retirement of the C-130H fleet,
- \$91 million from the cancellation of the Gap Year program,
- \$50 million by deferring the roll out of the ADF Family Health Program by a year,
- \$46 million from reductions in travel and postings arrangement in line with the Strategic Reform Program (SRP), and
- \$45 million cut in Minors projects from all three services.

What struck ADM most about the budget this year was not so much the cuts, though they are impressive or depressing depending on your state of mind, but the change in language.

Real growth, on average or not, is not spoken of. The Offshore Combatant Vessel has become the Offshore Support Vessel. An associate secretary for capability has become a general manager of submarines. And the Strategic Reform Program is barely mentioned, much like Defence in general, by the Treasurer.

What is constantly mentioned is the raft of projects purchased outside the Defence Capability Plan framework with great success; how job cuts will not come from uniformed personnel (so operations will not be affected) but rather the public service; and how project approvals are on the up and will continue into the future.

Whatever the rhetoric and the numbers may say, the government will have to make some hard decisions in the upcoming White Paper in terms of timing and capability. This will shape what the Australian Defence Force will look like in 2030. The 2009 White Paper is dead; long live the new White Paper.

Second AEHF communications satellite launched

The second Advanced Extremely High Frequency (AEHF-2) military communication satellite, built by a Lockheed Martin was successfully launched last week aboard a United Launch Alliance (ULA) Atlas V rocket.

AEHF builds on the success of the Lockheed Martin-built Milstar constellation currently on-orbit by providing vastly improved global, survivable, highly secure, protected communications for warfighters operating on ground, sea and air platforms.

AEHF will also serve international partners including Canada, the Netherlands and the United Kingdom.

A single AEHF satellite provides greater total capacity than the entire five-satellite Milstar constellation.

Individual user data rates will be increased five-fold, permitting transmission of tactical military communications, such as real-time video, battlefield maps and targeting data.

In addition to its tactical mission, AEHF also provides the critical survivable, protected, and endurable communications links to national leaders including presidential conferencing in all levels of conflict.

Lockheed Martin is currently under contract to provide four AEHF satellites and the Mission Control Segment.

The program has begun advanced procurement of long-lead components for the fifth and sixth AEHF satellites.

SEA 1439 Phase 5B2, Collins External Communications System (ECS) improvement, includes provision for a high data rate (HDR) satellite antenna.

Higher data rate communications are seen as necessary for ships to participate fully in network centric warfare.

Raytheon's Sub HDR is a multi-band satellite communication system being installed in US nuclear-powered attack submarines including the new Virginia class.

The system consists of a mast-mounted antenna that can be deployed by raising it above the ocean's surface while the submarine remains submerged at periscope depth.

For Australia one of the main advantages of an HDR antenna would be access to the USAF's Advanced Extremely High Frequency (AEHF) system which is backwards-compatible with the previous generation of MILSTAR tactical communications satellites.

Will PIC Innovation replace DSTO's CTD program?

News that Round 16 of the Capability Technology Demonstrator program has been cancelled and no word about its future suggests that it may be replaced by the PIC Innovation program which offers matched funding to commercialise new defence technologies.

Under the program companies can apply for up to \$4 million in matched funding for innovative projects that will improve or enhance a Priority Industry Capability (PIC).

A merit-based program, proposals need to demonstrate a high level of merit against certain criteria, including strategic benefit, commercial prospects, management capability and of course, value for money.

As ADM editor Katherine Ziesing noted in her special 2012 budget report, a Defence spokesperson could not comment on the future of the program for either Capability Development Group or the Defence Science and Technology Organisation, nor point to specific details in the budget papers pertaining to the program during the Budget lockup.

The CTD Program aims to improve priority Defence capabilities and provides Australian and New Zealand industry with an opportunity to demonstrate their technology and allows Defence to assess its potential and associated risks.

Proposals need to address a Defence capability priority and demonstrate their potential within three years.

A major shortcoming with the CTD program was that technologies emerging from the program were often not adopted by Defence, thus impacting on their marketability, whereas for the PIC matched funding program, applicants had to demonstrate the commercial prospects of their proposals.

Interestingly Round 17 of the CTD Program opened on May 5, 2012 - *see the details in this week's Defence Tender list.*

Austal CEO visits Terma

Scuttlebutt that Austal CEO Andrew Bellamy, visited Terma last month to talk about future opportunities suggest that Austal is looking seriously at the future Sea 1180 Offshore Combatant Vessel (OCV) requirement.

Under this project Defence has been directed to develop proposals to rationalise the Navy's patrol boat, mine countermeasures, hydrographic and oceanographic forces, potentially into a single modular multi-role class or family of around 20 Offshore Combatant Vessels (OCV) combining four existing classes of vessels. The new vessels will likely be larger than the current Armidale Class patrol boats.

The concept relies on the use of modular unmanned underwater systems for both mine countermeasures and hydrographic tasks capable of being deployed independently to any operational area, or loaded onto any of the OCVs or vessels of opportunity.

In addition, the OCV and its systems will be able to undertake offshore and littoral warfighting roles, border protection tasks, long-range counter-terrorism and counter-piracy operations, support to Special Forces, and missions in support of security and stability in the immediate neighbourhood.

The feasibility of these new ships to embark a helicopter or UAV will also be determined during project development

It is understood that Terma discussed various naval solutions with Bellamy.

Terma and Austal also met during the Federation of Danish Industries' delegation visit to Australia in November last year. —*Defpro*

G-BAD systems in Olympic security tests

Testing of air defence missile systems as part of the Olympic Games security plan began May 3 at sites across London.

The systems are being placed at six sites in and around London for testing with dummy missiles as part of Exercise Olympic Guardian.

The nine-day exercise is aimed at testing the military contribution to the overall security effort and is putting airmen, soldiers and sailors through their paces in the skies over South East England.

It includes the use of Typhoon fighters, Army Lynx helicopters and Royal Navy Sea King ASaC (Airborne Surveillance and Control) helicopters.

At a media facility at Blackheath, both the Rapier system and the smaller high velocity missile (HVM) system were on show, with military personnel on hand to answer technical questions in the same way as they have at meetings with residents held last week.

While a formal government decision on where the equipment will be sited during the Games themselves is yet to be made, the proposed deployment would see the two different types of missile systems in use as part of a broad array of other defence capabilities.

Guided munition for Shadow 200

While the Shadow 200 Unmanned Aircraft System (UAS) provides support through its intelligence, surveillance and target acquisition capabilities, it lacks a strike capability.

Now Lockheed Martin has successfully conducted the first launch of a Shadow Hawk precision-guided weapon recently from a Shadow 200 (UAS), achieving a direct hit on the target.

Shadow Hawk is a 5.2kg, 27-inch long drop-glide weapon, terminally guided by a semi-active laser seeker, providing better than one metre precision.

Shadow Hawk also provides an essential off-axis capability, enabling engagement of designated targets off the aircraft's wing.

"As the mission of the Shadow UAS continues to evolve, it will need capability that can immediately neutralise threats detected and designated by the Shadow's sensor package, with minimum impact to the aircraft's endurance," said Glenn Kuller, director of advanced programs in Lockheed Martin's Missiles and Fire Control business.

"With precision strike accuracy, the Shadow Hawk is an ideal solution in urban environments where low collateral damage is essential."

Equipped with Shadow Hawk and the UAS's electro-optical and infrared cameras, a Shadow UAS can now offer battlefield commanders timely detection of threat activities, including fleeting and time-sensitive threats, along with a quick-strike capability. — *Lockheed Martin*

US Army prepares for 'non-developmental' GCV assessment

The US Army is preparing to conduct an operational assessment on a small number of non-developmental vehicles that could serve as alternatives to its Ground Combat Vehicle (GCV) program.

The assessment, which is scheduled to run from May 17-24, 2012 at White Sands Missile Range (WSMR) in New Mexico, will help support an 'analysis of alternatives' of potential off-the-shelf candidate vehicles that could satisfy the army's GCV requirements.

The Ground Combat Vehicle (GCV) is the US Army's replacement program for armoured fighting vehicles in Heavy and Stryker brigade combat teams.

There are similarities between the US GCV program and Australia's Land 400 requirement.

The Land 400 Land Combat Vehicle System (LCVS) will be acquired to fulfil an identified strategic capability need for a mounted close combat system for future warfighting.

The LCVS will be required to operate across the full spectrum of threats and environments which may be encountered by the AOF.

This will include hybrid enemy capabilities.

The LCVS will be capable of defeating comparable enemy combat systems.

The AOF operating context necessitates a combat force capable of amphibious and expeditionary operations.

The LCVS must be capable of being projected for sustained operations against an adaptive enemy in complex terrain.

The LCVS will be part of the wider Combined Arms Fighting System (CAFS), which will include legacy, parallel and future capabilities.

Next Galileo satellite launches

The European Commission has announced the launch date of the next pair of ESA-procured Galileo satellites.

These will be launched together on a Soyuz from French Guiana on September 28, 2012 joining the two satellites already in orbit.

The new launch will take place within a year of the first two Galileo In-Orbit Validation satellites, which reached orbit on October 21 last year.

Four navigation satellites are the minimum needed for satellite navigation – to measure latitude, longitude and altitude while checking ranging accuracy – so these four Galileo satellites can be used to assess the performance of Galileo's world-spanning ground system that serves to maintain the precision of the Galileo system.

In addition European industry should be able to test their own prototype Galileo-based receivers and services realistically against actual satellite signals.

The full Galileo system will consist of 30 satellites in orbit overseen by control centres located in Europe and a global network of sensor stations and uplink stations.

Each satellite combines the best atomic clock ever flown for navigation – accurate to one second in three million years – with a powerful transmitter to broadcast precise navigation data worldwide.—ESA/Defpro

EdgeTech acquires software for Littoral MCM sonar

SeeByte, a leader in smart software technology for unmanned systems, has announced that an order for fifteen software licences of SeeTrack Military has been confirmed through EdgeTech.

The purchase comes in support of the Littoral Mine Countermeasure Sonar (LMCS) system from EdgeTech.

LMCS is an advanced mine and underwater IED hunting system which combines EdgeTech's side scan sonar technologies to provide exceptional swath coverage and ultra-high resolution imagery.

Through the purchase of SeeTrack Military, a mission-planning, monitoring and post-processing tool, and its additional modules ATR (Automatic Target Recognition) and PATT (Performance Analysis and Training Tool), EdgeTech will be better placed to meet the technical requirements of their customers.

The ATR module will be used to detect specific regions in side-scan sonar data that potentially correspond to an object previously learned by the system.

Obvious false alarms are removed, creating an accurate map of contacts for operators to examine within the surveyed area.

PATT allows users to add synthetic, but highly realistic, images of objects to real mission data, providing a clear understanding of the actual performance of the MCM system and sensors in use.

Fourth Dolphin class sub for Israel

At the HDW shipyard in Kiel, Germany last week, Israel assumed control of a fourth Dolphin-class submarine, which was officially handed over following the acquisition and development process led by the Ministry of Defense and the Israeli Navy.

The Minister of Defense, Lieutenant General Ehud Barak, said the submarine would amplify the capabilities of the IDF and the State of Israel's strength.

The Navy had undergone strategic changes over the past few years that placed it at the forefront of the battle over the safety of Israel, as the long arm of the IDF.

Last month he signed a construction and supply contract for a new and improved submarine scheduled to arrive in Israel during 2017.

It will be the sixth submarine, following the fifth that will arrive in 2015 and the fourth that was launched May 3.

The submarines flotilla represents the long arm of the Navy, the IDF and Israel.

The flotilla personnel regularly perform intensive operational activity near and far, operating away from the public spotlight.

These submarines, together with the ones that will follow, will double the number of existing Israeli submarines.

They are an essential part of the effort to protect the citizens of Israel.

—*Defpro, IDF*