



DEFENCE WEEK

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Australia not alone in procurement difficulties

Tom Muir

While *Australian Defence Magazine's* forthcoming July issue will delve into the problems behind the Land 40 Lightweight Automatic Grenade Launcher (LWAGL) acquisition, now an ongoing Project of Concern, it seems this country is not the only one to have faced difficulties in what should have been a straightforward contest between two suppliers.

Canada began fielding soldiers to Afghanistan by the beginning of 2002, and in May 2003, the Army examined the capabilities offered by mortars and automatic grenade launchers in urban fighting. The study recommended that an **Advanced Grenade Launcher** be considered as a possible rifle company support instead of the **M19 60mm mortar**, with a possible purchase of 81mm mortars as a supplement.

The CAD\$100 million **Close Area Suppression Weapon (CASW) project** began in 2004 for delivery in August 2006, but due to slippage delivery was not achieved until 2012. The CASW project has been seen as an example of ongoing, serious problems with Canada's military procurement system.

Reports indicate that the key reasons were utterly bureaucratic. After initial delays, the competition had to be restarted in 2009, after **Public Works Canada** (which has a role in Canadian defence buys) ruled that the sole bidder, **Rheinmetall Canada**, failed to provide enough information on the financial forms attached to its proposal.



Rheinmetall Canada argued that it had submitted a fully compliant bid.

The procurement process was relaunched in summer 2009, and Rheinmetall Canada's team with the **HK Grenade Machine Gun (GMG)** was said to be the winner in early 2010, beating **ST Kinetics' CIS 40mm CSL** with a contract announced in December 2010. Rheinmetall Canada is delivering more than 300 40mm HK GMG grenade launchers with Rheinmetall's integrated **Vingmate fire control system** and ammunition with airburst technology. Critics say program delays have ensured that these valuable weapons will arrive too late to make much of a difference to the multi-year mission in Afghanistan, except as a base protection weapon.

While Australian infantry in Afghanistan may have missed out on being equipped with the LWAGL, this was not the case for mounted troops with Mk-19 auto grenade launchers acquired in considerable numbers, mainly through FMS, for service with SOTG and others in Afghanistan, mounted on **Land Rover, ASLAV** and **Bushmaster vehicles**. Our understanding is that Canada is yet to launch a competition for vehicle mounted grenade launchers.



Government review into MPR

The Joint Committee of Public Accounts and Audit has released its findings into the value of the latest Major Project Report (MPR) from the DMO and ANAO. There were a couple of highlights from the document that **ADM** would like to outline.

"At 30 June 2012, the total approved budgeted costs for the 29 projects was \$47.3 billion, a net increase of \$5.9 billion compared to their Second Pass Approval approved budgeted costs (\$41.4 billion). The \$5.9 billion comprised:

- price indexation increases of \$7.5 billion;
- real variation increases of \$2.7 billion; and
- foreign exchange rate decreases of \$4.3 billion.

"While variations due to price indexation and exchange rates were 'outside the direct control of project management', real variations to budgeted costs:



... primarily reflect changes in the scope of projects, transfers between projects for approved equipment/capability, and budgetary adjustments such as administrative savings decisions.

“During the 2011–12 financial year, the approved budgeted cost of the 29 Major Projects decreased by \$1.1 billion (or 2.4 per cent) due to foreign exchange decreases of \$894.6 million and real decreases of \$267.3 million.

“Across the 29 major projects, 18 projects had experienced schedule slippage. Total schedule slippage to date was 859 months when compared to the initial predictions when the projects were first approved by government. This represented a 32 per cent increase on the expected schedule since the main investment decision was made (compared to 31 per cent in the 2010–11 MPR).

According to the ANAO, ‘the reasons for schedule slippage vary but primarily reflect the underestimation of both the scope and complexity of work, particularly for Australianised Military Off-the-Shelf (AMOTS) and Developmental projects. The ANAO noted that 87 per cent of the total schedule slippage across the Major Projects covered in the 2011–12 MPR was made up of projects approved prior to the DMO’s demerger from the Department of Defence in July 2005—projects which tended to be more developmental in nature.

Reasons given for schedule slippage included:

- The complexity of the technology. For example, the DMO’s project to install developmental phased array radar onto **airborne early-warning aircraft** encountered a ‘large range’ of unexpected technical problems.
- The availability of platforms for modification, particularly for projects that are upgrading existing platforms. As availability is driven by ‘operational tempos’, the deployment of assets into theatre will mean they are not accessible and schedules may need to be adjusted. Examples given of projects where this has occurred included the **Collins replacement combat system** and **upgrades to the P-3C aircraft**.
- Underestimation of the maturity of a system and the amount of development required. For example, when the decision was made to acquire **MRH 90 helicopters**:

... it was assumed it had been offered to Defence as a mature capability and it was not as mature as had been assessed. So it took longer to mature that capability than was planned in the project at the start.”

“The MPR disclosed that approximately \$1.1 billion had been drawn upon from project contingency budgets in 2011–12 to retire project risks, equivalent to 2.3 per cent of the total approved project budget. The change in supplementation policy associated with out-turned budgets means that price indexation is now ‘a major risk or issue in some projects’, and for which contingency funds may need to be drawn upon. Fifteen major projects which had used contingency funds in 2011–12.”

The DMO was not keen on explaining how and why contingencies were used for commercial in confidence reasons with **DMO CEO Warren King** citing the fact that “disclosing the amount of money in each project provides an opportunity for people to go after that money.”

The DMO has also undertaken to look at ways to provide more detailed information on sustainment in order to improve its transparency despite listing a number of reasons why this would be difficult (operational sensitivity, lines of funding, open ended time lines etc).





Hawkei test vehicles delivered on schedule

Thales Australia has delivered a further two Hawkei vehicles to the Defence Materiel Organisation on schedule.

The handover of the two Reconnaissance variants under Stage 2 of the **Manufactured and Supported in Australia (MSA)**

option of **Land 121 Phase 4** means that all six vehicles are now with the Department of Defence for testing. All vehicle delivery milestones have been met on schedule.

The six vehicles comprise two Command variants, two Utility variants and two Reconnaissance variants, plus a trailer. The majority of the evaluation process is being undertaken by the Commonwealth at Monegeetta in Victoria, and includes survivability testing, communications system integration testing, electro-magnetic interference/compatibility testing, reliability growth trials and user assessments.

Vehicles already delivered have so far completed almost half of the planned 100,000km of testing scheduled for the evaluation period. Subject to successful testing of the vehicles, final approval of the project is expected circa 2015, as detailed in the 2012 Defence Capability Plan.

"We have invested \$30 million in Hawkei, and Australian industry has also put significant effort into the development of these vehicles," Thales Australia CEO **Chris Jenkins** said.

The Hawkei is manufactured at Thales's Bendigo facility in Victoria. Employing 200 people, Bendigo is also home of the Bushmaster vehicle. Land 121 Phase 4 is a Department of Defence project that seeks to provide up to 1,300 protected light vehicles.



Australia, Sweden sign agreement on submarine technology

Australia and Sweden have reached agreement on transfer of submarine intellectual property as a key step in maintaining existing Collins submarines and building their replacements.

The agreement followed extensive negotiations between Australia's **Defence**

Materiel Organisation and the **Swedish Defence Materiel Administration**.

"This agreement gives effect to Australia's rights to use and disclose Swedish Intellectual Property rights for complex submarine design and technology," Defence



Minister Stephen Smith said.

“Defence materiel cooperation has been a key feature of the Sweden-Australia relationship, most notably in the area of submarine technology where our collaboration over the construction and support of the Collins submarines has spanned two decades, and more recently, with the vital ‘sense and warn’ capability provided to protect our troops in Afghanistan,” he added.

In 1987, Australia ordered six submarines of the Collins Class designed by Swedish firm **Kockums AB**. The submarines were built in Adelaide and will be in service for at least another 20 years.

Australia is now planning for their replacement with 12 new boats with the recent **2013 Defence White Paper** settling on two options - an evolution of Collins or a completely new design.

Smith said the government announced last year it would engage Kockums to undertake initial design studies for the evolved Collins. But before that could occur, Australia needed to reach an agreement with Sweden on use of Collins and other Swedish technology for the **Future Submarine Program**.



Sir Richard Williams Foundation to contribute to Drones debate

The Sir Richard Williams Foundation has announced a series of initiatives intended to contribute to debate on Australia’s use of Remotely Piloted Aircraft (RPA) – more commonly known as drones.

In the future, military and civil air power will include more aircraft with no pilots on board. There are many ethical, legal and strategic issues to be solved if authorities are to keep pace with the rapidly evolving technologies.

RPAs can be used for a wide range of purposes in both military and civil contexts, and this presents a number of challenges for government and policy makers. Australia has hard decisions to make about RPAs and many issues must be widely debated beforehand.

To assist that process the Williams Foundation will host a public seminar on drones at the **Australian War Memorial on Wednesday July 3**. A wide selection of the most senior military and civilian experts will address the seminar and encourage public debate to map out a sensible way ahead. A number of technological, ethical and safety issues are on the agenda and discussion is sure to be lively.

In order to facilitate broader community engagement on the myriad of often complex issues related to the use of drones, the Williams Foundation has set up a website to make information available in plain language to interested parties. There is a wide range of uses for drones outside of the military, many more than most will be aware of, and information on these is available at www.dronepower.org.au

The Williams Foundation will issue a detailed public report later this year outlining options and recommendations for the future use of drones in both military and civil aviation.

Note: ADM Editor Katherine Ziesing is a Williams Foundation board member.





Ambiguous amphibious operations

Posted on ASPI's *The Strategist* May 28, editor Andrew Davies makes a very telling point regarding amphibious operations when he says that if defence planners are serious about conducting amphibious assault

operations using the LCDs, they'd be looking seriously at the option of a naval task group taking along its own air power.

Opposed operations without air cover aren't a recipe for success, he says. The Falkland Islands War, for example, would have been a resounding defeat for the British without the Harriers embarked on their aircraft carriers. While the combination of the Canberra class and the short take-off vertical landing (STOVL) version of the Joint Strike Fighter seems to be a credible option for getting back into the fixed wing naval aviation business, the Australian ships are built to the specs of the Juan Carlos class amphibious assault ship operated by the Spanish Navy which embark **Matador (Harrier) short take-off vertical landing (STOVL)** jet operations.

But Dr Davies points out that the two ships the ADF are getting won't be configured for fixed wing operations, lacking as they do the radar and air control systems necessary. Nor is there any plan to acquire those systems or the STOVL aircraft required. And budget pressure will mean that it's not likely to happen in the foreseeable future.

In fact, the South Pacific countries can expect regular visits from the Canberra class. We're told that the ADF will establish an 'enduring joint amphibious presence in the South Pacific through regular deployments'. That's a long way from amphibious assault far from home, but much more attuned to the scenarios that the ADF is actually likely to be tasked to respond to.



Defence opposes Raymond Terrace development

Parliamentary Secretary for Defence, Senator David Feeney, and the Chief of Air Force, Air Marshal Geoff Brown, visited RAAF Base Williamtown and Raymond Terrace to raise concerns about the development of 153 Richardson Road, Raymond Terrace.



Port Stephens Council has recently approved a development application for the land.

“Defence releases Australian Noise Exposure Forecast (ANEF) maps to provide the best available information for decision making by councils when considering developments,” Senator Feeney said.

“The Council has seemingly chosen to totally ignore these maps and to develop this land for residential use. Of the 53 lots, 43 of them are within the 25-30 ANEF contour, making them totally unacceptable for residential housing according to our own Australian Standard AS2021.

“Of the remaining 10 lots, they sit within the 20-25 ANEF contour, which is considered only conditionally acceptable and will require sound proofing.

“When Councils disregard the ANEF and the Australian Standards it exposes people to aircraft noise that could have been avoided. RAAF Base Williamtown isn’t going anywhere – any future development inside the ANEF exposes new people to totally avoidable aircraft noise.

“Our aircraft will continue to fly and will continue to make noise, no matter how much we try to minimise that. Flying aircraft is an essential part of having a RAAF that defends our nation. Aircraft noise is here to stay and approving this land for subdivision totally ignores this fact.

“This decision also comes on the back of the considerable consultation that has gone on with both the Council and community groups prior to the Williamtown ANEF release. This consultation was to ensure the future predicted noise exposure, including from the **F-35A (Joint Strike Fighter)** was understood,” Senator Feeney said.

Air Marshal Brown also noted problems with the approval of the development application.

“RAAF Base Williamtown is a strategic base for our national security and undertakes vital work training the next generation of air combat pilots,” AIRMSHL Brown said.

“RAAF Base Williamtown needs to be protected against urban encroachment, so the men and women of Air Force can continue their essential duties.

“Aircraft noise will never be eliminated. However Air Force has implemented ‘fly neighbourly’ procedures to reduce aircraft noise impacts for existing properties. Developing properties within the ANEF zones, will further constrain the already limited opportunities for Air Force to mitigate aircraft noise impacts, both now and in the future.”

CRC-ACS & ACS Australia head office opens

Cooperative Research Centre for Advanced Composite Structures (CRC-ACS) and Advanced Composite Structures Australia Pty Ltd (ACS Australia) this week celebrated the official opening of the new head office and facilities.

The move to new premises, and the establishment of facilities in Port Melbourne as a head office for both organisations, signals a transition to a new future focused on bringing Australia’s manufacturing and engineering industry into world supply chains, and expansion into new markets.

CRC-ACS and ACS Australia have also been recently recognised for their role in helping Australian SMEs to reach international markets, and were awarded the **CRC Star award** by Senator **Don Farrell**, Minister for Science & Research, May 16, 2013.

The award recognised the collaboration of CRC-ACS and ACS Australia with Australian SME companies **Supacat Pty Ltd** and **Pacific Engineering Systems International Pty Ltd**, in securing contracts from new international businesses including the emergent Chinese aerospace industry.





Report: Industry policy key to manufacturing success

A new report conducted by professional services firm Deloitte and the World Economic Forum (WEF) underlines the pivotal role that government policies play in driving successful manufacturing sectors.

The report provides a blueprint for current and future Australian governments interested in ensuring consolidation and ultimately growth in Australia's manufacturing sector.

It highlights those countries that are succeeding in policy settings, and somewhere there is further work to be done.

The common themes drawn from this report have strong application in Australia and around 20 Australian manufacturers contributed to the base research referenced around drivers of success.

The report highlights how global manufacturing decision-makers are looking to a range of policy settings when making investment decisions, from science, technology and innovation, through to tax and trade policy, innovation and talent retention.

To download a copy of the report visit www.deloitte.com/manufacturingforgrowth



Voice commands to replace mouse and keyboard

A DSTO-developed human-computer interface will enable Command and Control (C2) personnel to carry out their operations room work more effectively. The purpose of this work is to provide a better way of accessing

and displaying information and to obviate some manual aspects of room control. The effect is to streamline operation room workflows and enhance personnel focus on core tasks.

Considerable research effort in numerous countries has been conducted into establishing voice-activated autonomous assistance as an alternative human-computer interface technology in place of the conventional mouse and keyboard. Two recent high-profile systems with voice-control interfaces are **Apple's 'Siri'** and the **IBM produced 'IBM Watson'**.

Spoken Dialogue Systems (SDS), like those in use for automated taxi bookings and telecommunication service inquiries, typically lead users through a pre-defined set of choices, forcing the user to respond to a series of set prompts to achieve a desired outcome. As numerous users would attest, that process can be tedious, slow, cumbersome and frustrating.



"Our system is designed to be intuitive. It aims to interpret a speaker's communicative intent, which may be expressed in a variety of natural language utterances," DSTO's researcher **Dr Adam Saulwick** explained.

Due to the complexities of natural language interpretation, the coverage of the DSTO SDS is at present limited to specific tasks arising in the context of Command and Control room operations. "We have seen that the responsiveness of the SDS engenders in users a sense that the system is 'aware' of their needs," Dr Saulwick said. "One way it does this is by keeping track of certain user requirements, such as room-state settings appropriate for presentations and for work collaborations."

The SDS technology has been demonstrated through trials conducted in DSTO's **Livespace facility**, a room fitted with C2 support technologies to enable the development of automated aids.

The DSTO researchers are continuing to enhance the system's coverage, responsiveness, flexibility and robustness. Lessons learned will provide research guidance to other applications currently being developed such as ubiquitous computing applications. – *Defence Science Australia*



Date for Avalon 2015 confirmed

Organisers of the Australian International Airshow and Aerospace & Defence Exposition have announced the much anticipated dates for Airshow 2015.

The industry only trade exposition and the popular public Airshow will be held from Tuesday February 24 to Sunday March 1 at Avalon Airport near Geelong, Victoria.

Before finalising the dates, Airshow organisers consulted with a range of stakeholders to ensure there was no clash with other events on Victoria's busy events calendar.

Airshow 2015 will commemorate the **ANZAC Centenary**, and will pay aviation homage to a century of service by Australians in the defence of the Nation.

ADM Cyber Security Conference

Date: 12-13 June 2013, Hotel Realm, Canberra

Enquiries: Jamie Burrage, Tel: +61(2) 9080 4321;

Email: Jamie.burrage@informa.com.au



ADM Online: Weekly Summary

A summary of the latest news and views in the defence industry, locally and overseas. Check out our webpage for daily news updates on the *ADM* home page and make sure you bookmark/RSS this for a regular visit.

This week, **Northrop Grumman Corporation** significantly increased its commitment to Australia through the award of contracts valued at US\$7.4 million to three new global supply chain partner companies who will provide products and services for a variety of missions and capabilities.

The Royal Australian Navy submarine **HMAS Dechaineux** conducted a patrol through the North West Australia area in the vicinity of important oil and gas infrastructure. During the patrol the submarine took the opportunity to exercise with a RAAF AP-3C Orion aircraft in order to prove the effectiveness of joint air and sub-surface security patrols.

And, PepperBall Technologies announced **NIOA** as the sole distributor of their products - projectiles, launchers and accessories - in Australia.

International



EuroHawk GmbH, NGC and EADS committed to Euro Hawk program

EuroHawk GmbH, Northrop Grumman and EADS remain fully committed to the Euro Hawk program of record, and the critical capabilities the system will provide the German armed forces and its allies, according to a joint statement.

The full Euro Hawk system, including the mission control system and the sensor, has performed flawlessly and safely throughout the entire flight test program.

Media reports that indicate there are challenges with the aircraft's flight control system, as well as excessive costs associated with completing airworthiness certification, are inaccurate.

EuroHawk GmbH will continue to work with the customer to address any concerns they may have with the system; and the team will provide an affordable and achievable plan to complete flight testing of the initial asset and the eventual production and fielding of the full system of four additional aircraft.





Bundeswehr's Fuchs/Fox 1A8 transport vehicles get an upgrade

Rheinmetall will modernise 25 more Fuchs/Fox armoured transport vehicles for the Bundeswehr, substantially enhancing their level of protection.

The **Federal Office of Bundeswehr Equipment, Information Technology and In-Service Support (BAAINBw)** in Koblenz recently awarded the contract, which is worth €36 million.

To date, BAAINBw has contracted with Rheinmetall to upgrade a total of 152 Fuchs/Fox 1 vehicles to the new 1A8 version. By February 2013, 123 of these had been delivered. With the latest order the total number of Fuchs/Fox 1A8 vehicles in the Bundeswehr inventory is set to rise to 177.

The latest retrofit order will considerably expand the operational spectrum of all these Fuchs/Fox vehicles, whose numerous variants have become indispensable in Bundeswehr missions. Once modernised, they will provide crewmembers with a substantially higher level of protection from a variety of battlefield threats.

The 25 vehicles that form this order come in five different configurations, three of which the Bundeswehr is procuring for the first time:

- 7 HRM communication vehicles equipped with high-frequency HRM radio systems;
- 5 command and fire control vehicles for indirect fire/joint operations tactical fire support;
- 4 combat weather section vehicles for indirect fire/joint operations tactical fire support (weather data collection and analysis);
- 6 armoured reconnaissance vehicles;
- 3 EOD section vehicles.

This increases the number of different Fuchs/Fox 1A8 variants in service with the Bundeswehr to 16. The Bundeswehr intends to use the new vehicles in support of deployed operations abroad as well as for special pre-deployment training in Germany. Delivery of the vehicles will commence in the fourth quarter of 2014, and is scheduled for completion in 2016.

French white paper: 12 key points

The new French Defense and National Security White Paper was released on April 29, 2013.

The white paper reaffirmed France's commitment to NATO, the security of the European Union as well as its enhanced defence-relationship with the UK after the Lancaster House treaties on defence and security co-operation.

To download a summary of the White Paper and the top twelve points from this report click [here](#).

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FORTHCOMING EVENTS

For a full list of defence and industry events, head to **ADM's** online events page at www.australiandefence.com.au

ADM Cyber Security Conference

DATE: 12-13 June, 2013, Hotel Realm, Canberra

ENQUIRIES: ADM Events - Jamie Burrage, Ph: 02 9080 4321;

Email: Jamie.burrage@informa.com.au **Web:** www.admevents.com.au

ADM's 3rd Cyber Security Summit will see stakeholders from Australia's Defence and National Security agencies address the current and emerging cyber threats to Australia's security. More details to be released closer to the date.

Land Environment Working Group

DATE: 21 June 2013, National Convention Centre, Canberra

ENQUIRIES: Erin Frazier: erin.frazier@defence.gov.au, Ph: 6265 4820

Web: www.govdex.gov.au

This meeting is an opportunity for Industry representatives to discuss projects in the DCP with project managers. The way ahead for Land Development Branch in Capability Development Group will also be discussed. Interested participants can register and RSVP for the event through the Govdex website. Access to this website can be granted by sending an email to Erin Frazier.

DSEI

DATE: 10-13 September, 2013, ExCel, London

ENQUIRIES: **Web:** www.dsei.co.uk

DSEI is the largest fully integrated defence and security show in the world, featuring Air, Naval, Land and Security show content. Based in ExCeL, London every two years, the event provides unrivalled access to key markets across the globe.

SimTecT

DATE: 16 Sep - 19 Sep, 2013, Brisbane Convention and Exhibition Centre, Queensland

ENQUIRIES: **Web:** www.simtect.com.au

SimTecT is the annual Simulation Technology and Training Conference held by Simulation Australia. Since its inception in 1996, SimTecT has grown to become Australasia's premier simulation conference for industry, government and academia.

2nd annual ADM Defence Support Services Summit

DATE: 19 Sep, 2013, Hyatt Hotel, Canberra

ENQUIRIES: ADM Events - Jamie Burrage, Ph: 02 9080 4321;

Email: Jamie.burrage@informa.com.au **Web:** www.admevents.com.au

The Defence Support and Reform Group has an annual budget of \$3.9 billion, with an asset base in excess of \$20 billion and around 2,600 civilian and 1,100 military staff. It provides a diverse range of products and services to support over 100,000 ADF personnel and Australian Public Service (APS) employees.