

ADM DEFENCE WEEK PREMIUM EDITION

AUSTRALIAN DEFENCE MAGAZINE
SERVING THE BUSINESS OF DEFENCE



The US Navy is reported to 'routinely accept delivery of ships with large numbers of uncorrected deficiencies'. LOCKHEED MARTIN.

US shipbuilding performance holds lessons for Australia

Ewen Levick | Sydney

The US Government Accountability Office (GAO) has submitted a scathing report to Congress on the poor performance of the US shipbuilding industry, highlighting potential challenges for Australia as the government embarks on its own national shipbuilding strategy.

The [report](#) opens with a blunt message: "The US Navy set a goal in 2007 for a fleet of 330 ships. Since then, the Navy has fallen 50 ships short, gone \$11 billion over budget, experienced many years of schedule delays, and delivered ships with less capability and lower quality than expected.

"These poor outcomes persist because policy and processes enable the Navy to deviate from shipbuilding best practices."

The report comes as the US Navy prepares to undertake its most significant size increase in 30 years with acquisitions including Columbia-class ballistic missile submarines and a new range of guided missile frigates under the FFG-X program.

IN THIS ISSUE

US shipbuilding performance holds lessons for Australia	1
Canada increases Hornet buy	3
Summit strengthens Australia-Japan defence ties	4
Army gains more unmanned ground vehicles	6
Army selects Rockwell for avionics support	7
Australian body armour manufacturer in joint venture for exports	8
USV successfully counters naval swarm	9
Forthcoming Events	11

The authors examined the last 10 years of US naval shipbuilding, concluding that programs "have often not achieved their cost, schedule, quality, and performance goals."

"While poor outcomes are more acute with the first ships of the class, follow-on ships also often do not meet expected outcomes."

The report notes that ships frequently overrun budgets by up to 80 per cent and fall short of schedule expectations (sometimes by more than two years). As a result, the US Navy "routinely accepts delivery of ships with large numbers of uncorrected deficiencies."

The Freedom LCS variant, for example, is unable to meet the 3,500 nautical mile range requirement. The report also singled out Austal's Independence-class ships for being unable to meet the speed requirement of 40-50 knots.

Performance issues on other ships include "catastrophic propulsion system failures, issues with the engineering control system, and electrical distribution problems including the total loss of electrical power."

The report argues that the problems start with "an imbalance between the resources planned to execute these programs and the capabilities the Navy seeks to acquire."

"This imbalance forms during the pursuit to fund lead ship construction, when competitive pressures to get funding for the program are high and many aspects of the program remain unknown," the report continues.

"During this process, the Navy often initiates shipbuilding programs with weak business cases that over-promise capability.

"Shipbuilding programs come under pressure to control growing costs and schedules, often by changing planned quality and performance goals. By the time these pressures are realised and acted upon, multiple ships are often under construction, resulting in disruptions throughout the ship class."

The report is a stark warning of the potential pitfalls for Australia's shipbuilding program, particularly after an ANAO [report](#) identified 'high to extreme risk' for the submarine, frigate, and OPV builds.

"Performance issues include catastrophic propulsion system failures, issues with the engineering control system, and the total loss of electrical power"



Austal's Independence-class ships are reportedly unable to reach 40-50 knots.

US NAVY

"Key risks relate to the delivery of expected capability, program cost, ability to meet program schedules, and management of the industrial base," ANAO stated.

These are exactly the same issues that now plague the US fleet. Defence and government would be wise to learn from the painful mistakes of others before RAN finds itself adrift on ships with no power and less capability than planned.

Canada increases Hornet buy

Julian Kerr | Sydney

Canada has increased the number of F/A-18 A/B 'classic' Hornet fighters it wants to buy from Australia from 18 to 25, a Senate Estimates hearing has been told.

An official expression of interest in the Hornets was received from Canada last September.

Air Vice Marshal Cath Roberts, head of Aerospace Division at the Capability and Sustainment Group (CASG), said Australia had provided Canada with a letter of cost proposal in December for 18 aircraft and spares.

"They accepted our offer in December, but they have also put in a further request for some seven aircraft for system testing, training and spares," she disclosed.

AVM Roberts said the asking price involved a general offer rather than cost per aircraft and undertook on notice to advise Senator Rex Patrick of the amount.

Senator Patrick's office advised *ADM* that this figure had not been notified, as of 12 June.

Earlier in the month the Ottawa Citizen newspaper reported that the Canadian government had set aside up to C\$500 million (A\$507 million) for the purchase, but referred to the acquisition of 18 rather than 25 aircraft and spares.

Surprisingly, the newspaper quoted Procurement Minister Carla Qualtrough as saying negotiations with Australia were still underway. She did confirm however that she expected the first two aircraft to be delivered in 2019.



Australian and Canadian Hornets have completed similar upgrade programs in the past decade.

DEFENCE

“This plan was cancelled in favour of the Australian Hornets when Boeing accused Canada’s Bombardier of dumping its CS100 airliner into the US market”

Originally, Canada had intended to supplement its fleet of 85 Boeing CF(F/A)-18 A/B fighters with 18 new Boeing F/A-18 E/F Super Hornets. This plan was cancelled in favour of the Australian Hornets when Boeing accused Canada’s Bombardier of dumping its CS100 airliner into the US market after receiving unfair subsidies from Ottawa.

The RAAF’s 71 F/A-18 A/Bs are due to be retired by 2022 in favour of 72 F-35A Joint Strike Fighters but it is not clear how soon more than one-third of the Hornet fleet could be made available for Canada.

Canada requires the additional aircraft to fill interim operational gaps prior to the anticipated arrival in 2025 of the first of 88 advanced fighters to be provided under a future fighter competition launched last December.

Both the Australian and Canadian aircraft have completed similar upgrade programs in the past decade and offer similar sensor and avionics capabilities.

Summit strengthens Australia-Japan defence ties

Ewen Levick | Sydney

Security cooperation between Australia and Japan has been strengthened in recent weeks following the 2018 Shangri-La Dialogue in Singapore and the delivery of four more Bushmasters to the Japanese Ground Self-Defence Force (JGSDF).

The delivery brings the total number exported to Japan to eight.

Minister for Defence, Marise Payne met with her Japanese and US counterparts Tomoni Inada and James Mattis on the sidelines of the Shangri-La Dialogue.



Defence Minister Tomodi Inada, Secretary for Defense James Mattis, and Minister for Defence Marise Payne. MARISE PAYNE VIA TWITTER



Mattis' statements suggest the US wants to see more military and industrial cooperation between Australia and Japan.

MARISE PAYNE VIA TWITTER

“The US now wants to see more bilateral engagement from both sides”

According to a statement released by Minister Payne, the three nations “affirmed their shared intent to promote trilateral and multilateral security and defence cooperation with each other, regional allies, and partners.

“Secretary Mattis and Minister Payne reiterated their support for Japan playing a greater role in regional and global security. Moreover, Secretary Mattis welcomed the further deepening of bilateral defence cooperation between Australia and Japan.”

It's no secret that the US oversees a highly complex alliance system in the Pacific. Two of its most critical allies, Japan and South Korea, are at loggerheads over historical grievances, and the Philippines has become unpredictable under Rodrigo Duterte.

Japanese relations with Australia also suffered following the decision to buy French Shortfin Barracuda submarines for Sea 1000 over Japan's Soryu-class, which was seen as the [favourite](#) before the Coalition leadership spill.

Mattis' explicit support for a “further deepening of bilateral defence cooperation” between Canberra and Tokyo suggests that the US now wants to see more bilateral engagement from both sides, both militarily and on the industrial fronts.

US pressure could mean that Australian industry will find a welcoming customer in Japan, especially as Tokyo is now expected to ‘play a greater role in regional and global security’. The country has been steadily [increasing](#) its defence budget and PM Shinzo Abe is seeking to revise the constitution to allow for a more proactive Japanese military.

Japan is likely to play a large role in the Commonwealth's ambitions to make Australia a major defence exporter. Those four Bushmasters may well be followed by more Australian technology.

TOP COMMENTS

Anyone else get the feeling that we may be better off delaying Sea 5000 by another two years or so to allow the Type 26 to mature a little more? Build a fourth Hobart class in the meantime and reduce the frigate build to eight instead of nine. How many times have we been burnt by buying paper designs rather than proven platforms?

– **Joel Robertson**

Building a fourth Hobart would have been a really smart move. The sense of doing so, however, eluded our politicians and I suspect that the other two services were demanding their turn at the funding trough. Above all it would have allowed the start-up skill requirements of the sub and frigate projects to be separated by half a decade or so.

– **Johnno**

Another potential option might be a split build of the F-5000/evolved Hobart, say another three units, with six Type 26 built later.

– **Joel Robertson**

The time required to get tenderers to rework their bids would mitigate against any form of split build at this point. I am afraid that the only option available to the government now is to make a choice between the three designs.

– **Johnno**

Army gains more unmanned ground vehicles

The Army will purchase an additional four unmanned ground vehicles (UGVs) and accessories from Queensland company Praesidium Global for \$2 million.

“The unmanned ground vehicles will be used by the Army to support a 12-month user evaluation trial within the 2018–19 financial year,” Minister for Defence Industry Christopher Pyne said.

“Unmanned ground vehicles will enhance the Army’s capability through assisting our soldiers with a range of manual handling tasks, such as moving heavy loads and field equipment, and casualty evacuations.”

“During the trial, the Army will continue to explore the utility of robotics and autonomous systems and develop an understanding of how they can be best employed to support our soldiers.”

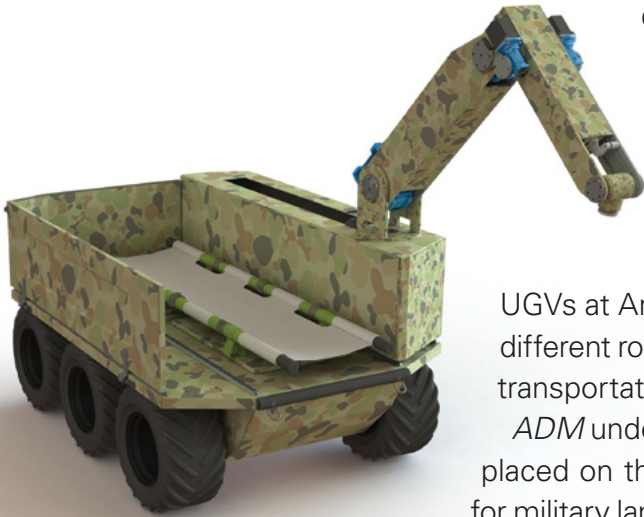
In a statement, Minister Pyne said the purchase was an excellent example of Defence supporting Australian sovereign defence industry.

“We are committed to building stronger relationships with defence industry and encouraging new innovative technology,” Minister Pyne said.

Andrew Wallace, Federal Member for Fisher where Praesidium Global is based, said that this contract was another great win for the growing Sunshine Coast defence industry.

“The Sunshine Coast is fast emerging as an Australian

“Unmanned ground vehicles will enhance the Army’s capability through assisting our soldiers with a range of manual handling tasks”



defence industry hub,” Mr Wallace said.

“My congratulations to David and the team at Praesidium Global. I look forward to working with them, and with our other Sunshine Coast defence industry businesses to make the most of future opportunities.”

[Praesidium](#) previously demonstrated its UGVs at Army Innovation Day. The tech can operate in different roles, such as MEDEVAC, logistics and general transportation.

ADM understands that [increasing emphasis](#) is being placed on the development of autonomous technology for military land vehicles, but full-scale operational capability is still some way off.

The function of the assisted casualty extraction (ACE) unit is to remove a casualty from a hostile environment via remote control. PRAESIDIUM GLOBAL

Army selects Rockwell for avionics support

The Army has selected Rockwell Collins to provide extended avionics support for its fleet of CH-47F Chinook helicopters through a performance-based logistics (PBL) contract.

The agreement provides field service engineering, program management, logistics service and repair and overhaul for the Common Avionics Architecture System (CAAS) components installed on the aircraft and Transportable Flight Proficiency Simulators. It extends to 2020.

To date, Army avionics have achieved an average availability of 100 per cent on all CAAS equipment over 20 months, with zero aircraft-on-ground incidents.



An Australian Army CH-47F Chinook helicopter lifts from Mount Hagen Airport during Operation PNG Assist 2018.

DEFENCE

"The partnership with Rockwell Collins in support of the Australian Army CH-47F Chinooks has proven economical and highly efficient whilst improving successes in its operational domains," Rachael Taylor, Chinook platform manager for Army, said. "These results have led the unit to extend the contract to ensure the in-country Rockwell Collins interface is maintained to ensure mission success."

"We've been supporting the Australian Army since they took delivery of their aircraft three years ago, delivering the highest level of service in country so they can maintain mission readiness," Thierry Tosi, vice president and general manager of Rockwell Collins' Service Solutions, said.

"This extension demonstrates their confidence in our services program and the value we provide through a PBL."

"The agreement provides field service engineering, program management, logistics service and repair and overhaul for the Common Avionics Architecture System"

Australian body armour manufacturer in joint venture for exports

Queensland-based Craig International Ballistics has signed a joint venture agreement with the United Kingdom's Cooneen Protection Limited, paving the way to export success.

The joint venture, Cooneen Craig Limited, is the result of strong collaboration between the two companies, which are cooperating in tender opportunities in New Zealand, France, Singapore, Belgium and the United Kingdom.

Cooneen Craig Limited intend to manufacture and sell composite ballistic protection to Europe and the Middle East.

The agreement was signed at the Eurosatory defence and security international exhibition in Paris, and was witnessed by Minister for Defence Industry Christopher Pyne.



Craig International Ballistics supplies body armour to Australian police forces.

CRAIG INTERNATIONAL BALLISTICS

"This joint venture is a great example of the huge opportunities on offer for Australian businesses in the defence sector, and the strong and growing links that exist between the Australian and United Kingdom defence industries," Minister Pyne said.

"With companies like Craig International Ballistics leading the charge for export success, the Australian sovereign defence industrial base we need will be more robust, more resilient and better able to meet Australia's defence capability needs."

[Craig International Ballistics](#) supplies soft armour inserts and hard ballistic plates to Defence and local police forces.

PEOPLE ON THE MOVE

The Ai Group Defence Council National Executive has named Ian Irving, CEO of Northrop Grumman Australia, as its new Chair. Mr Irving replaces outgoing Chair, Chris Jenkins, CEO of Thales Australia, who will remain Ai Group National President. Andy Keough, Managing Director of Saab Australia, has been appointed as the new Deputy Chair.



Ian Irving

USV successfully counters naval swarm

An unmanned surface vessel (USV) has been used to successfully counter a swarm attack in a demonstration exercise carried out by Rafael for NATO forces.

The exercise, which took place off the coast of Israel, demonstrated the capabilities of the Protector USV against naval swarm threats.

In the exercise, a NATO ship spotted a large number of hostile vessels advancing rapidly in a swarm attack. The ship reported back to headquarters, allowing the deployment of a Protector USV.

The USV identified the threat from a long distance and simulated the firing of a Spike missile.



The USV successfully defended a NATO ship against a swarm attack.

RAFAEL

MOST READ ONLINE AT WWW.AUSTRALIANDEFENCE.COM.AU

1. [Triton program making gains in US, Germany and Australia](#)
2. [Special Report: Sea 5000 and ASW capability – making sense of a complex picture](#)
3. [Data centre sinks into the Atlantic](#)
4. [Export success for Australian load handling system](#)
5. [Big Australian presence at Eurosatory](#)

“USVs can handle the threats emanating from terror and criminal activity”

Moshe Elazar, head of the Land and Naval Systems Division at Rafael, noted that the demonstration of the Protector’s capabilities shows that USVs can handle the threats emanating from terror and criminal activity.

In a statement, Rafael said that the force-multiplying capabilities USVs offer can be applied in a wide range of operational scenarios. These include a water cannon, EW systems, mine counter-measures, Toplite electro-optical long-range detection and tracking systems, and Spike missiles.

In March 2017, Rafael announced it had completed a series of successful tests in which a number of Spike missiles were launched from the Protector and hit simulated enemy targets. The tests were the first time a live missile fired from an operational, remotely controlled USV.

[Elbit Systems](#) recently conducted a similar test of a USV undertaking ASW operations against an Israeli submarine.

The tests come ahead of Autonomous Warrior 2018 (AW18), which will be held in Jervis Bay in November.

Whilst RAN does not currently have a procurement program for a USV, it has previously trialled the [Bluebottle ASW USV](#), designed by Ocious Technology and Thales. Three networked Bluebottles will participate in AW18.

CONTACT DETAILS

MANAGING EDITOR

Katherine Ziesing
T: 0419 014 308

katherineziesing@yaffa.com.au

ONLINE EDITOR

Ewen Levick
T: 02 9213 8249

ewenlevick@yaffa.com.au

ASSOCIATE PUBLISHER

Kylie Leonard
T: 07 3087 5101

kylieleonard@yaffa.com.au

ART DIRECTOR

Ana Heraud

SUBSCRIPTIONS

Martin Phillpott
Toll Free 1800 807 760

martinphillpott@yaffa.com.au

CONTRIBUTORS

Julian Kerr
T: 0418 635 823

jhrhkerr@bigpond.net.au

Nigel Pittaway

M: 0418596131

cnpittaway@bigpond.com

Copyright © 2018



PUBLISHED BY

Yaffa Media Pty Ltd
17-21 Bellevue St,
Surry Hills NSW 2010
T: 02 9281 2333

www.greatmagazines.com.au

ADM CANBERRA OFFICE

PO Box 4783, Kingston ACT 2604
T: 02 6203 9535

ADM BRISBANE OFFICE

PO Box 9165,
Wynnum Plaza Qld 4178
T: 07 3348 6966

www.australiandefence.com.au

SUBSCRIPTIONS GREATMAGAZINES.COM.AU **CALL** 1800 807 760 **EMAIL** SUBSCRIPTIONS@YAFFA.COM.AU

All material appearing in ADM is copyright. Reproduction in whole or in part is not permitted without permission in writing from the publisher. The publishers accept sole responsibility for the contents of this publication, which may in no way be taken to represent the views of the Department of Defence, the Australian Defence Force or any other agency of the Commonwealth of Australia.

Forthcoming Events

ADM EVENTS

More detail on **ADM** Events can be found on our dedicated website: admevents.com.au

- [ADM Women in Defence Awards](#) – 27 July 2018
- [ADM STEM in Defence Summit](#) – 21 August 2018
- [ADM Defence Estate & Base Services Summit](#) – 19 September 2018
- [ADM Defence in Northern Australia Summit](#) – 10-11 October 2018

ASDEFCON TD/IP Roadshow

Location Sydney, Melbourne, Newcastle, Cairns, Brisbane, Adelaide, Perth, Darwin

Date 2 May – 5 July 2018

Register procurement.ASDEFCON@defence.gov.au

Following the official launch of the new ASDEFCON Technical Data/ Intellectual Property (TD/IP) framework on 11 April, roadshows have been scheduled around the country from May to July 2018. The roadshow is open for both Defence and industry personnel to attend. Each roadshow will comprise a general overview of the new framework and interactive sessions.

Building Australia's Strategy for Space: ASPI

Date 13-15 June 2018

Location QT Hotel Canberra

Website www.ivvy.com.au

The conference will bring together distinguished international and Australian experts for two days of debate on Australia's long-term strategic plan to grow its burgeoning space industry.

IFRS Next

Location Canberra

Date 28 June 2018

Register <https://www.regionalsecurity.org.au/event-2861870>

Future strategic leaders will deliver six-minute presentations about a topic they're passionate about and they also feel is of importance to Australia's national security. Expect innovative thinking and insights, even some controversy. It runs for one hour in the arthouse-style setting of Palace Electric Theatre, and is followed by a networking event. It is your chance to engage in conversation with Australia's future security leaders.

Defence + Industry Conference and Gala Awards 2018

Date 1 August 2018

Location Canberra

Website [CASG](#)

The annual CASG and Defence Industry gathering in Canberra to discuss policy and programs with a range of speakers gathering to discuss the way forward. A Gala Awards night will take place on the evening preceding the event, where ADM's Essington Lewis Awards will be presented, recognising excellence in collaboration.

Project and program management symposium

Date 14-15 August

Location UNSW @ ADFA, Canberra

Register www.pgcsymposium.org.au

The annual Project and Program Management Symposium provides a forum that brings together project management people to share knowledge and improve the governance and controls skill sets available to deliver successful project outcomes for the nation. A highlight of the symposium is its access to thought leaders from the USA and Europe. Each year, selected speakers from overseas are brought to the symposium to share knowledge and provide an international perspective on project and portfolio management.

Scindicate 2018

Date 29-30 August

Venue Scindicate Labs, Fisherman's Bend, Melbourne

Web <https://scindicate2018.eventbrite.com.au>

SCINDICATE is the new brand name for the previous annual external engagement event called Partnerships Week. SCINDICATE delegates will experience technology demonstrations, workshops, briefings and laboratory tours, as well as opportunities for networking and forging new collaborations. Delegates can choose to attend on either day, and the program will include key elements repeated across both days.

Hunter Valley Defence Conference 2018

Date 30-31 August 2018

Location Crowne Plaza Hunter Valley

Website [HunterNet](#)

The 2018 Defence Conference will focus on driving collaboration and engagement between Defence Primes, the region's SME's, academia and Defence. A highlight of the conference will be the spectacular low flying aerial show from Matt Hall Racing, followed by a gala dinner.

Land Forces 2018

Date 4-6 September 2018

Location Adelaide

Website www.landforces.com.au

Presented in collaboration with the Australian Army, LAND FORCES 2018 is an international industry exposition to showcase equipment, technology and services for the armies of Australia and the Indo-Asia-Pacific.

ANI Goldrick Seminar

Venue ADFA

Time 17 Sep, 2018

Web <https://navalinstitute.com.au/>

ANI will be holding its annual Goldrick Seminar at ADFA – with the title Naval Shipbuilding as Strategy. The event is well-attended every year by senior serving officers and by defence industry.

SIA Biennial Conference

Date 7-8 November 2018

Location Canberra Rex Hotel

Website www.submarineinstitute.com/sia-conferences

Join submarine professionals and key decision makers as the ninth in the Biennial series of conferences run by the Submarine Institute of Australia returns to Canberra to explore the issues and opportunities emerging from the decision to extend the lives of the Collins class submarines.

MilCIS 2018

Date 13-15 November 2018

Location Canberra

Website www.milcis.com.au

In November each year, the Defence Chief Information Officer Group (CIOG) partners with the UNSW Canberra and the Institute of Electronic and Electrical Engineers (IEEE) to present MilCIS.

TEAM DEFENCE AUSTRALIA EVENTS

- **AUSA 2018** – 8-10 October 2018, Washington DC, US
- **Indo Defence 2018** – 7-10 November 2018, Jakarta, Indonesia
- **Euronaval 2018** – 23-26 October 2018, Paris, France

For more information go to the business.gov.au TDA webpage [here](#). TDA EOIs will open a few months prior to the event – to keep up to date [register](#) for the CDIC newsletter.