

# ADM DEFENCE WEEK

AUSTRALIAN DEFENCE MAGAZINE

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## PREMIUM EDITION



The Mark 45 Mod 6 5-inch gun of HMAS *Hobart* engages a towed surface target during weapon trials.

DEFENCE

## US Navy and RAN demonstrate cooperative engagement capability

Katherine Ziesing | Canberra

In an announcement earlier this week, the government has confirmed that Australia and the US are the first countries to use [Cooperative Engagement Capability \(CEC\)](#) between their navies.

HMAS *Hobart*, first of the AWDs, shared sensor information and real-time combat system data with the US Navy during training and testing near Hawaii. HMAS *Hobart* established secure data links with the US Arleigh Burke class destroyer USS *John Finn* and shared tracking and fire control data across the two ships.

Minister for Defence Christopher Pyne said the trials were a significant milestone in the testing and qualifying of *Hobart's* combat and weapons systems.

"These trials are the culmination of 12 months of preparations and demonstrate *Hobart's* formidable capability," Minister Pyne said. "Australia is the first

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country outside the US with CEC, and so this demonstration marked the first time this capability was proven between two navies.”

Commanding Officer HMAS *Hobart*, Captain John Stavridis, said the visit to the US had proven how closely the Australian and US navies can work together.

“Connecting and sharing data with the US Navy like this is an important step in increasing our interoperability with them, especially during linked task group operations at sea,” Captain Stavridis said. “Sharing information like this between ships at sea means that ships in a task group can know and respond to what is going on, including sharing tracking and targeting data.

“It means that a ship can detect and, if needed, engage a threat identified by another ship or aircraft, creating greater flexibility and better protection for all the ships involved.”

Cooperative Engagement Capability is one technology that will form a part of the Australian Joint Integrated Fires Capability being implemented in the ADF. Defence is [planning to integrate](#) the CEC into other ADF capabilities, including the E-7A Wedgetail aircraft and the Integrated Air and Missile Defence (IAMD) program down the road.

The CEC will also be integrated into the Hunter class’ Aegis combat management system, together with an interface developed by Saab Australia and the CEAFAIR phased array radar, as part of a strategic enterprise approach to combat management systems.

**ADM Comment:** There has been a lot of talk on the conference circuit about ‘kill chains’ vs ‘kill webs’ and ‘any sensor, any shooter’ (or my favourite ‘any sensor, best shooter’) for some time now. These are concepts, not tied to any domain or specific platform.

Getting a true ‘any sensor, best shooter’ outcome between the Australian and US navies is an impressive achievement on the path towards a truly joint fire capability. It is the first of many such steps towards greater integration of the distributed sensor network as the digital nature of the battlefield becomes increasingly complex.

“Getting a true ‘any sensor, best shooter’ outcome between the Australian and US navies is an impressive achievement”

## Defence quietly buys relocatable data storage

Ewen Levick | Sydney

**Defence has selected Canberra-based Datapod to provide relocatable data storage facilities in a deal worth \$7.4 million.**

Datapod provides modular, scalable, and custom [storage facilities](#) on that “overcome the main barriers to successfully deploying a new server room or data centre”.

The facilities are based on an ISO-standard shipping container footprint and can be deployed in a wide variety of environments. They also have properties of a Faraday Cage, granting resistance to electromagnetic or electrostatic interference.

The company has existing contracts with Eaton Australia, a power management company, and has customers in Europe, the US, and in Defence industry.

The [Request for Tender](#) (RFT) for the project [won by Datapod](#) was listed on AusTender by the Department of Finance back in 2013.

The RFT states: “The Australian Government is seeking Data Centre suppliers to provide scalable and flexible arrangements to meet a wide range of Data Centre Facility Supplies requirements.

“Data Centre Facilities Supplies are to be provided and Data Centre Locations are to be located within Australia.”

The RFT specifies a capacity of a million voltage-amps, delivered over five years with total extension options of another five years.

The Defence [contract](#) with Datapod was awarded through a [Data Centre Supplies Panel](#) that is now run by the Digital Transformation Agency (DTA). Panels are multi-agency standing tenders that emerged following the [2008 Gershon Review](#) into the Commonwealth’s use of information and communication technology (ICT), which advocated for a reduction in agency autonomy when it comes to ICT procurement decisions.

There are 14 other companies on the panel, including Hewlett-Packard, Vocus, and Fujitsu.

Contracts can be awarded from [all government agencies](#) directly to entities listed on the panel. The panel was established in 2014 and concludes in 2019.

There is no cap on the value of contracts that can be awarded through the panel, and agencies are not required to approach multiple companies on the panel.

A spokesperson for the DTA told *ADM* that it took over management of the panel in 2017.

“The Department of Finance established the panel. Management of the panel was transferred to the DTA in May 2017,” according to the statement.

“Agencies have the choice to approach one, a few, or all of the companies on

“Defence is clearly keeping the purpose of the relocatable Datapod storage facility heavily under wraps”



Data storage is a particularly sensitive topic for Defence.

PIXABAY



the panel when they are seeking a quote. As a mandated panel, the capped term and value policy does not apply to contracts awarded through the panel.”

It is unclear how many Defence contracts are quietly awarded through uncapped RFTs listed under other government departments or through panels.

Defence is clearly keeping the purpose of the relocatable Datapod storage facility heavily under wraps.

A Defence spokesperson told *ADM* that the facility will “support Defence network operations,” and is due to enter service in 2019.

“Further details of the equipment or its intended use will not be released due to the sensitive nature of Defence network operations,” the DTA statement said.

This is the [same answer](#) given to other news organisations.

*ADM* also contacted Datapod, who were unable to provide comment on the project given its sensitivity.

When it comes to industry support of security-related contracts, the Defence community is understandably tight lipped about the finer details. Despite the likes of ASD now [entering the Twittersphere](#) and being relatively more open about what they do, information on who is contracted to provide what in the data and information space is still slim.

## RAAF KC-30A completes refuelling trials with US Raptors

Nigel Pittaway | Melbourne

**A RAAF KC-30A tanker has completed air-to-air refuelling trials with USAF F-22 Raptors. The trials were held at Edwards Air Force Base in California in August and September.**

Trials were conducted over the course of eight flights with the F-22 in different load configurations to ensure compatibility with the KC-30A's boom system.



A RAAF KC-30A refuels a USAF F-22 Raptor during trials at Edwards Air Force Base in California.

USAF

Completion of the trials allowed for the release of formal instructions on how to refuel an F-22 from a KC-30A, enhancing interoperability between the RAAF and USAF.

Jeremy Sequeira, the Flight Test Lead at RAAF Base Amberley, said the trial posed few challenges aside from the highly sensitive nature of the F-22.

"Overall there were few real issues as the KC-30A and F-22 are fairly mature platforms for aerial refuelling," Sequeira said.

"Much of the lead up to the trials was spent planning to ensure we only hit the essential points in the trial to minimise the impact on the high-tempo KC-30A fleet."

**"Trials were conducted over the course of eight flights with the F-22 in different load configurations"**

The F-22 is the USAF's air superiority platform, and was barred from export under the Obey Amendment in 1997 – allegedly [amidst fears](#) that Israel would transfer associated technologies to Russia or China.

The aircraft has since seen service in Europe, the Middle East, Japan, Southeast Asia, and Australia, [deploying to RAAF Tindal](#) last year for Enhanced Air Cooperation (EAC) activities under the US Force Posture Initiatives.

It has also played a role in operations in Syria, primarily [escorting other aircraft](#) to deter intervention by the Syrian government's sophisticated air defence system.

**ADM Comment:** The Raptor joins a growing list of aircraft capable of refuelling from a RAAF KC-30A, including Russian-made Sukhoi fighters that deployed to Australia as part of the Indian Air Force's participation in [Exercise Pitch Black](#).

One notable omission however is the Boeing F-15 Eagle, which is operated in significant numbers by the USAF in the Middle East and around the world, as well as by partner nations such as Singapore. While early trials between an RAAF KC-30A and USAF F-15 were conducted in the US some years ago, they were never completed. ADM understands that this was due to the location of the UARSSI on the F-15's 'shoulder', which resulted in the boom being affected by turbulent airflow around the canopy of the receiving aircraft.

## Safran opens new facility in Botany

**Minister for Defence Christopher Pyne, Safran CEO Martin Sion, and the CEO of Safran Pacific Alexis de Pelleport opened the company's new facility in Botany this week.**

The new facility will house testing and maintenance equipment in around 100 square metres of workrooms, including a clean room, a laser room, climate testing systems, as well as avionics, inertial navigation and optronic test benches. The suite of equipment is also capable of servicing submarine optronic masts.

The new site has potential for further expansion and is strategically positioned in close proximity to key Defence sites and Sydney Airport.

"This new facility is a vote of confidence in the defence industry and will let Safran better support the ADF," Minister Pyne said.

The opening marks an important milestone in the company's local presence.



Minister for Defence Christopher Pyne speaking at the opening of Safran's new facility in Botany.

EWEN LEVICK

The existing Bankstown site had become too small for Safran's increasing industrial footprint and staffing, prompting the French company to relocate its local subsidiary to the larger premises.

The company has increased its local workforce from 11 to 25 in 2018 and expects more growth in 2019.

"The opening of this new site enables our local subsidiary... to expand and increase its service capabilities towards its Australian customers," CEO Martin Sion said.

"The company has provided support to the French and foreign military forces for more than 75 years in optical and navigation systems, and we are today focused on providing the same level of support to the ADF."

Safran has supplied optronic and inertial navigation systems to 70 nuclear and conventional submarines, including the new French Barracuda-class nuclear attack submarines.

The company recently signed an agreement with Australian company Advanced Navigation on the navigation subsystem of the Future Submarine program. The partnership will see Safran and Advanced Navigation's engineers working together as part of a combined project team.

**"The new facility will house testing and maintenance equipment in around 100 square metres of workrooms"**

## New Melbourne OneSKY office for Thales

**The new Thales Australia World Trade Centre offices have been opened by Defence Minister Christopher Pyne in Melbourne, paving the way for further progress in the OneSKY project.**

The offices, which have undergone a \$12 million redevelopment, will be home to the OneSKY project team developing the common Civil Military Air Traffic Management System for Defence and Airservices Australia.



The OneSKY project will replace the ageing military air traffic management systems.

THALES

"This facility will be used to develop the most advanced and integrated air traffic control system in the world," Deputy Prime Minister Michael McCormack said.

## "Under OneSKY, Australia will be better able to handle forecasted air traffic growth"

"The system will manage forecasted growth of air traffic movement in Australia, by as much as 60 per cent by 2030, minimising delays for the travelling public.

"Under OneSKY, Australia will be better able to handle forecasted air traffic growth which will reduce congestion and open up more efficient air routes to reduce flight times and fuel costs."

Minister Pyne said that OneSKY is a world-first.

"The OneSKY project will transform Australia's air traffic management system and national infrastructure in the sky, ensuring the travelling public arrive at their destination safely and with minimal delays," Minister Pyne said.

"This office will support up to 550 specialist high-tech jobs in Melbourne across the Land and Air Traffic Management businesses, building Australian skills in complex project management, systems engineering and software development.

"A further 200 Australian job opportunities are expected in the Australian supply chain. In fact, around 75 per cent of the OneSKY acquisition cost and 95 per cent of the ongoing annual support costs will be to Australian companies.

"These jobs will contribute to the development of an integrated system that will manage more than 11 per cent of global airspace and some of the world's busiest air routes.

"This project will replace the ageing military air traffic management systems and is essential to ensuring our Defence Forces can continue to operate seamlessly in Australia's airspace."



# New mast for HMAS *Arunta*

**HMAS *Arunta*'s new mast has been installed as part of the ship's Mid Life Capability Assurance Program (AMCAP) upgrade being undertaken at BAE Systems Australia's Henderson facility.**

The new mast was manufactured by BAE Systems as part of the Warship Asset Management Agreement (WAMA) between BAE, SAAB Australia, Naval Ship Management (NSM) and the Commonwealth.

**“The replacement mast is taller and wider than the existing mast to accommodate the new CEA L-Band radar system”**

Around 650 people are currently working on the upgrade of the ANZAC frigate fleet, including 400 BAE employees.

The mast installation is one of the last major works on the ship ahead of her undocking before the end of the year. She will then undertake sea trials ahead of a planned return to service in 2019.

The replacement mast is taller and wider than the existing mast to accommodate the new CEA L-Band radar system, while retaining the existing anti-ship missile defence radar capability. The L-Band radar will be integrated into the existing combat management systems of the ship by Saab Australia.

HMAS *Arunta* arrived at Henderson in September 2017. In addition to the new mast, the ship will also have upgraded ventilation systems, new sewage systems, improvements to the control and monitoring system, engine modifications to improve power and efficiency, and a new communications suite.

The improvements to the control and monitoring system of the ship include replacing existing analogue technology with digital. According to BAE, this is the first time that such a technology refresh has been undertaken on such a large scale on the ANZAC-class ships.

Integration of the communications system into the existing data communications



HMAS *Arunta* on patrol in the Middle East.

DEFENCE



MOST READ ONLINE AT [WWW.AUSTRALIANDEFENCE.COM.AU](http://WWW.AUSTRALIANDEFENCE.COM.AU)

1. [Puma IFV 'no bid' for Land 400 Phase 3](#)
2. [Progress but no deadline for Future Submarine agreement](#)
3. [Naval Shipbuilding College launched](#)
4. [Ultra and Airbus cooperate on submarine air revitalisation](#)
5. [Canada opts for Type 26 frigate](#)

systems has been closely managed during design by Melbourne-based defence communications company Leonardo.

"Our team at Henderson and Williamstown in Victoria has established and maintained an important maritime engineering and program management capability through the sustainment of the ANZAC fleet over more than two decades," BAE Australia Chief Executive Gabby Costigan said.

"That capability is critical to ensure that the project achieves quality, cost and schedule milestones despite the enormous complexity of such work."

HMA Ships *Anzac* and *Perth* have also [docked for AMCAP upgrades](#), marking the first time all three warships have been on the hard stand at Henderson.

## Elbit to provide maritime UAS to EU agency

**Elbit Systems has been awarded a framework contract to provide maritime Unmanned Aircraft System (UAS) patrol services to the European Maritime Safety Agency (EMSA).**

The contract will be executed in cooperation with CEiiA, an engineering



The Hermes 900 is a long-range unmanned maritime surveillance system tailored for littoral and blue water operations. ELBIT SYSTEMS

company in Portugal. It specifies a two-year base period and two single year option periods.

The total contract value is €59 million (approximately \$93 million).

"Having been selected by the European Union authorities is yet another vote of confidence in the Hermes 900 following additional contract awards for this UAS in Europe, Asia Pacific, Latin America and Israel," Elad Aharonson, General Manager of Elbit Systems ISTAR Division, said.

Under the contract and in cooperation with CEiiA, Elbit Systems will lease and operate the Hermes 900 maritime patrol aircraft, a long-range unmanned maritime surveillance system tailored for littoral and blue water operations, and its ground control station.

The Hermes 900 will feature maritime radar, an Electro Optic payload, satellite communications and an Automatic Identification System (AIS) receiver.

According to Elbit Systems, the UAS will enable persistent monitoring of vast swathes of sea and long coastlines. It will also be able to identify suspicious activities and potential hazards.

**"The UAS will enable persistent monitoring of vast swathes of sea and long coastlines"**

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# Forthcoming Events

## ADM EVENTS

More detail on **ADM** Events can be found on our dedicated website: [admevents.com.au](http://admevents.com.au)

- [ADM Congress 2019](#) – 13 February 2019

### Armistice and After – An Exhibition

**Date** 11 November 2018

**Location** Hall School Museum and Heritage Centre

**Website** <http://www.museum.hall.act.au>

'Armistice and After' records the participation of the Hall district diggers in the triumphs of 1918 and the euphoria that accompanied the end of hostilities. It also records the difficulties of repatriation and adjustment to civilian life in a world where the promises of peace and prosperity never quite materialised. The exhibition is the closing chapter of our ANZAC exhibition – 'When Hall Answered the Call'. All are welcome to the opening by Andrew Leigh MP at 11.00 am on Remembrance Day 11 November.

### ACA Corrosion & Prevention 2018

**Date** 11-14 November 2018

**Location** Adelaide Convention Centre

**Website** <http://www.corrosion.com.au>

As always, the focus of the ACA's annual conference and trade exhibition will be the safe and effective management of the continuing challenge posed by corrosion. More than 400 delegates are expected to attend the conference and extensive exhibition supported by key industry suppliers. Industry experts will deliver five plenary presentations—including the F P Thompson Lecture, which will be delivered by Professor Brian Kinsella, Curtin University, Australia.

### MilCIS 2018

**Date** 13-15 November 2018

**Location** National Conference Centre, Canberra

**Website** [www.milcis.com.au](http://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.

## Australian Warrior Expo

**Date:** 15-17 November 2018

**Location:** Brisbane Showgrounds, Exhibition Building

**Website:** [www.australianwarriorexpo.com.au](http://www.australianwarriorexpo.com.au)

The Australian Warrior Expo (AWE) is Australia's premier Law Enforcement, Military, Emergency Services and Security Expo and is the only event of its type in Australia. AWE is dedicated to showcasing the latest products, technology, equipment and services to this niche market. AWE will bring both professionals and agencies together including Government Procurement Managers, Decision Makers and Operators.

## BMT's Submarine Design & Engineering Course

**Date** 10 Dec - 14 Dec, 2018

**Location** University of South Australia

**Website** <http://www.bmtdesigntechnology.com.au/training-courses/submarine-design-engineering>

BMT's Submarine Design and Engineering Course presents attendees with the latest thinking and innovations in submarine design and operations. The course provides students with a complete understanding of conventional submarine technology, and our experienced presenters explain how capability requirements and new technologies can impact overall submarine design and management. The course is also accredited by the Royal Institution of Naval Architects.

## Avalon Airshow 2019

**Date:** 26 February – 3 March 2019

**Location:** Avalon Airport

**Website:** <https://www.airshow.com.au/airshow2019/index.asp>

The Australian International Airshow and Aerospace & Defence Exposition is one of Asia-Pacific's most prestigious aviation and aerospace events and the most comprehensive aviation, aerospace and defence exposition in the southern hemisphere. Avalon hosts multiple concurrent conferences and expo streams, across the spectrum of Defence, Airlines, Business and General Aviation, Sport and Recreational Aviation, Airports, MRO, Space, Unmanned Systems, Air Safety and Ground Equipment.

## IMDEX Asia 2019

**Date** 14-16 May

**Location** Changi Exhibition Centre, Singapore

**Website** [www.imdexasia.com](http://www.imdexasia.com)

Coming to its 12th edition, the biennial IMDEX Asia is Asia Pacific's premier international maritime defence show and a must-attend event in the global naval and maritime security calendar. With established conferences and real-time discussions on maritime security, IMDEX Asia draws a plethora of global leaders and distinguished guests.



## Paris Air Show

**Date** 17-23 June 2019

**Location** Le Bourget

**Website** <https://www.siae.fr/en/>

The 53rd Paris Air Show will once again bring together all the players in this global industry around the latest technological innovations. The first four days of the Show will be reserved for trade visitors, followed by three days open to the general public.

## Pacific 2019

**Date** 6-8 October 2019

**Location** Sydney Convention Centre

**Website** [www.pacific2019.com.au](http://www.pacific2019.com.au)

As the only comprehensive international exhibition of its kind in the Indo-Asia-Pacific region, PACIFIC 2019 will again provide the essential showcase for commercial maritime and naval defence industries to promote their capabilities to decision-makers from around the world.

## MilCIS 2019

**Date** 12-14 November 2019

**Location** Canberra Convention Centre

**Website** [www.milcis.com.au](http://www.milcis.com.au)

In November each year, the Defence Chief Information Officer Group (CLOG) partners with the UNSW Canberra and the Institute of Electronic and Electrical Engineers (IEEE) to present MilCIS. The annual Military Communications and Information Systems (MilCIS) Conference welcomes military and government organisations, academia, and defence industries to contribute to the future direction of military communications and information systems.