

ADM DEFENCE WEEK

AUSTRALIAN DEFENCE MAGAZINE

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One of the RAAF's first F-35s sits on the flight line during the welcome ceremony.

NIGEL PITTAWAY

F-35 arrival the starting gun to IOC

Nigel Pittaway and Ewen Levick | Melbourne and Sydney

The arrival of the first two F-35A Joint Strike Fighters at RAAF Williamtown on Monday marks the start of a process that aims to achieve Initial Operating Capability (IOC) by the end of 2020.

The two aircraft will now begin a two-year verification and validation program that is designed to test how the weapons system interfaces with local ICT systems and infrastructure such as the newly-completed facilities at Williamtown and also underway at RAAF Tindal.

The aircraft are also the first to be hosted on the sovereign Australian version of the F-35A's Autonomic Logistics Information System (ALIS) and this will also be comprehensively tested over the next two years.

Further pairs of aircraft will arrive at Williamtown during the course of 2019 and Chief of Air Force Air Marshal Leo Davies said that eight aircraft will be on the Williamtown tarmac by the end of next year.

"We'll be operating the aircraft through 2019 and building up to having eight aircraft by the end of next year and ten to twelve pilots. We'll also be conducting maintenance training and looking to start (pilot) training

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ourselves, so we'll be building up to IOC in a couple of years' time," he said.

"As far as IOC is concerned, it is basically 3 Sqn having the ability to deploy as a combat force."

The two fighters flew to RAAF Williamtown from RAAF Amberley following a flight across the Pacific from Luke AFB, Arizona where they have been in the international training pool since coming off the production line. The landing was preceded by a spirited aerial display from F/A-18 Hornets and formation flying involving both Hornets and the F-35As.

One F-35A was flown by Wing Commander Daren Clare, the Commanding Officer of No.3 Squadron – the first RAAF fighter squadron to operate the 5th generation fighter. Fittingly, three of the four Hornets in the formation were flown by the Commanding Officers of future F-35A units, 75 Sqn, 77 Sqn and 2 OCU.

The delivery flight across the Pacific included a direct flight between Hickam Air Force Base in Hawaii and Amberley, marking the longest flight by any F-35 to date.

Once the F-35As touched down, they taxied towards the audience waiting at the newly-built hangars.

"Eight aircraft will be on the tarmac by the end of next year"

"This is the most advanced, multi-role stealth fighter in the world," Minister Pyne said in his address. "It will deliver next generation capability benefits and provide a major boost to our intelligence, surveillance, and reconnaissance capabilities.

"The Joint Strike Fighter (JSF) can get closer to threats undetected; find, engage, and jam electronic signals from targets; and share information with other platforms.

"The JSF is the largest acquisition in the history of the RAAF. In Australia's immediate region, Japan and South Korea are in the process of procuring the F-35A, and are closely aligned with Australia's pursuit of shared strategic, security, and economic interests," Minister Pyne said.

Whilst the two F-35As at Williamtown are the first to arrive in-country, eight further aircraft have been delivered to the RAAF at Luke Air Force Base, Arizona, for pilot training. Australian F-35s have flown over 1,800 hours.

In addition, over 50 Australian companies have shared in over \$1 billion in production contracts, with significant percentages of that share in specialised manufacturing and professional or scientific services.

65 per cent of Australian production contracts for the aircraft have come from Victoria, with 13 per cent from NSW and nine per cent from both Queensland and SA.

Chief of Air Force Air Marshal Leo Davies seemed keen to stare down critics of the F-35 program, which has seen protracted negotiations over cost between Lockheed Martin and the Pentagon as well as questions over whether the global fleet was meeting availability requirements.

"How do you excite a RAAF chief?" he asked, pointing to the F-35As. "Today, ladies and gentlemen, the naysayers can take a seat."

Whilst there are still concerns over the program (the US military's capabilities to repair F-35 parts are [six years](#) behind schedule), news has been positive of late. The ANAO has recently given the Australian acquisition tentative approval – no small feat – and has also approved the significant accompanying infrastructure works, which were also on full display at RAAF Williamtown on Monday.

PFAS contamination in the spotlight

Ewen Levick | Sydney

Issues surrounding contamination by potentially harmful PFAS substances around major Defence bases have resurfaced following the release of a [report by the Joint Standing Committee on Foreign Affairs, Defence and Trade](#).

PFAS chemicals (per – and poly-fluoroalkyl) do not break down and accumulate in animals and humans. Whilst long-term impacts remain unclear, the chemicals are known to damage endocrine and reproductive systems.

The report recommends the appointment of a coordinator to arrange the Commonwealth's response alongside a long-term testing program to determine possible health implications on local populations. It also recommends compensation for people suffering financial loss resulting from PFAS contamination.

Despite direct warnings to Australia by the US Environmental Protection Agency in 2000, Defence used stocks of firefighting foam containing the chemicals until at least 2011. [Research](#) has found high blood serum levels in communities around Defence bases in Oakey, Williamtown, and Katherine.

Defence has [warned residents](#) around Williamtown to reduce their intake of local fish, eggs, and red meat.

An internal investigation by Defence into the extent of contamination has covered 1,150 square kilometres at a cost of over \$130 million.

Documents obtained [by the ABC](#) under Freedom of Information laws have found that aviation firefighters have up to 20 times the normal level of PFAS in their blood. The testing was conducted by Airservices Australia, which used chemicals containing PFAS at national airports until 2010.

“Research has found high blood serum levels in communities around Defence bases in Oakey, Williamtown, and Katherine”



Aviation firefighters tested by Airservices are reported to have up to 20 times the normal level of PFAS in their blood. DEFENCE

In a statement acknowledging the report's release, Assistant Minister for Defence David Fawcett played down the health implications.

"While there is still no consistent evidence of human health impacts, the Government acknowledges that communities in areas where PFAS contamination has been detected are very concerned about how this may affect them."

"Their wellbeing is our focus and we will continue to work closely with them to provide advice and assistance as quickly as possible," Senator Fawcett said.

Norwegian sinking creates a headache for Defence

Ewen Levick | Sydney

Norway's Accident Investigation Board's [report](#) into the sinking of the KNM *Helge Ingstad*, a Navantia-built frigate that collided with a tanker outside the city of Bergen last month, has caused a stir for Defence.

The account of the accident makes for interesting reading.

"The accident was a complex one, involving several individuals, bridge crews, vessels, a VTS and the interaction between them," the report said.

"During the southbound voyage at a speed of about 17–18 knots, the AIS on board KNM *Helge Ingstad* was set to receiver mode (receipt only, no transmission of own data), the vessel's navigation lights were lit and the vessel could be observed by radar."

At 03:40, the navigation officer went through a handover procedure with the officer leaving watch.



The KNM *Helge Ingstad* is now almost completely underwater.

NORWEGIAN COASTAL ADMINISTRATION/ARMED FORCES

“It cannot be excluded that the same applies to vessels of a similar design delivered by Navantia”

At 03:57 the pilot of the tanker saw the frigate crossing his course line on radar but did not have an AIS signal. After repeated efforts, the pilot finally spoke to the *Ingstad* and requested a course change.

“The bridge crew on ‘KNM *Helge Ingstad*’ replied that they could not turn to starboard before they had passed the object they saw on their starboard side,” the report notes.

“When KNM *Helge Ingstad* did not change course, both the pilot and Fedje VTS [requested] the vessel to act. Shortly thereafter, KNM *Helge Ingstad* carried out an avoidance manoeuvre, but it was too late, and the two vessels collided.”

The report also highlights possible issues with watertight compartments on Navantia-made vessels, which include the RAN’s three Hobart Class Air Warfare Destroyers and flagship Landing Helicopter Docks.

“The crew found that water from the aft generator room was running into the gear room via the hollow propeller shafts and that the gear room was filling up fast. From the gear room, the water then ran into and was flooding the aft and fore engine rooms via the stuffing boxes in the bulkheads.

“It cannot be excluded that the same applies to vessels of a similar design delivered by Navantia, or that the design concept continues to be used for similar vessel models,” the Norwegian report said.

In response to a query from ADM, Defence played down the impact of the report.

“Defence is working jointly with Navantia to understand whether there are any design or equipment issues that come out of the accident investigation that may be applicable to the Hobart Class.

“Although the investigation is still in its early stages, Defence notes the Hobart Class Destroyers and the RNoN Nansen Class Frigates are significantly different, especially in the engineering configuration, equipment and compartment layouts.”

The need for a joint investigation suggests that more news on the impact of the Norwegian accident on the RAN may emerge in the coming months.

How to become a Tier 3 Supplier for Land 400

Ewen Levick | Sydney

Curtiss-Wright, the Swiss company responsible for building the turret aiming and stabilization drive system for Rheinmetall’s Boxers under [Land 400 Phase 2](#), has provided ADM with guidance on how Australian companies can join its supplier base.

The turret system has six main parts; the mechanical drive, rotary gear drive, linear drive, one and two-hand controllers, single and dual axis gyroscopes, and a motor controller. This requires a scope of supply that includes a traverse drive, elevation drive, digital single and dual axis gyros, elevation drive mells, and more.



Curtiss-Wright is responsible for building the turret aiming and stabilization drive system for Rheinmetall's Boxers.

DEFENCE

Housings must have measurements of 420/280/150 mm with .1 mm tolerance, and must be "absolutely leak proof."

The minimum requirements for assembly include an electro-static discharge table and floor mat, lifting devices, dedicated tools, and experience in assembling control boxes.

Paint suppliers must ensure products are resistant against chemical warfare substances.

Selection itself is a 12-part process that starts with first contact from the supplier and self-assessment. After preselection, non-disclosure agreements, and a supplier offer, Curtiss-Wright representatives will pay a site visit.

The process then moves to pre-decision, with a first sample order, quotation, and training, to a first sample inspection. If successful, the contract is then signed and delivery begins. The company used *ADM's* Directory of Defence Suppliers to help fulfill AIC commitments and the *ADM* tender bulletin to announce work packages.

Click [here](#) for more information.

"Selection itself is a 12-part process"

Kongsberg to expand operations in Australia

Norwegian technology and Defence group Kongsberg will increase its Australian workforce to more than 50 as part of a new strategic expansion into Australia and the Asia-Pacific region.

Eirik Lie, President of Kongsberg Defence and Aerospace, said the expansion



Minister for Defence Industry Steven Ciobo and Leiv Inge Steig, Executive Vice President Marketing and Business Development for Kongsberg.

KONGSBERG

“We believe there are strong opportunities in the Australian defence industry”

was part of a long-term focus on Australia.

“Kongsberg has a long and successful 30-year history of partnership with the ADF and Australian local industry – helping to create jobs, boost the economy and build Australian capabilities,” Lie said.

“We are establishing a bigger footprint in Australia as we believe there are strong opportunities in the Australian defence industry.”

Kongsberg is in the process of acquiring Rolls Royce Commercial Marine which has operations in Melbourne and Perth.

Minister for Defence Industry Steve Ciobo recently opened Kongsberg’s new Canberra office, which will become its business development and strategy hub for defence activities in Australia.

Kongsberg is a Tier 1 supplier for the Penguin Anti-Ship Missile, the RAAF E-7A Wedgetail, Australian Tactical Interfaces, the [Joint Strike Missile](#), Remote Weapon Stations, and is [working with Raytheon](#) to supply the National Advanced Surface to Air Missile System (NASAMS).

PEOPLE ON THE MOVE

Louise Adams, previously Regional Director responsible for Aurecon’s SA and Victorian practice and the first female member of Aurecon’s Global Board, has been appointed Managing Director Australia and NZ, currently responsible for generating 80 per cent of Aurecon’s revenue. Francoise Merit, previously CFO for Australia and NZ, has been appointed as Aurecon’s Global CFO, with previous CFO Andrew Muller appointed as Aurecon’s new Chief Operating Officer.

Airbus has appointed Alberto Gutiérrez, 56, head of Military Aircraft within Airbus Defence and Space, effective 1 January 2019. Gutiérrez will also serve as Head of Airbus Spain, overseeing the company’s overall business activities in the country. He succeeds Fernando Alonso, 62, who will retire after 40 years in the aerospace industry, 37 of those at Airbus.

New task force to drive defence industry in the Hunter

An advocacy and action group has been formed to promote the Hunter's [defence industry capability](#) and drive more defence contracts and investment to the region.

“Hunter Defence will seek to align local industry capabilities and capacities with coming opportunities”

The Hunter Defence collaborative task force will represent the interests of existing and potential participants in the defence industry. It will focus on demonstrating the capability of established Hunter defence industry suppliers to Government and prime contractors, as well as upskilling local SMEs.

Hunter Defence represents manufacturing and supply firms, industry networks, specialist consultants, advisors and government. The group will be chaired by Tim Owen, a former RAAF commander with significant expertise in contracting processes and experience working with defence primes.

Owen said the group would provide a strong voice promoting Hunter defence industry capability and help position regional firms to take advantage of upcoming opportunities.

“We have firms with excellent capability in the Hunter but that is only part of the equation; winning contracts is a competitive business that requires deep industry insight and high visibility with primes, defence stakeholders and government at all levels,” Owen said.



Neale Prescott, Business Development Manager Lockheed Martin and Andrew Chapman, F-35 Program Lead at BAE Systems Australia, and Tim Owen.

HUNTER BUSINESS CHAMBER

"Hunter Defence will seek to align local industry capabilities and capacities with coming opportunities and demonstrate the region's supply chain capability.

"We also want to encourage more SMEs to acquire advanced defence capability by facilitating education, training and advice.

"The Hunter already has strong expertise in advanced high-value, high-skills manufacturing and R&D, so there is great potential for locally based firms to diversify into defence or, for those who already have a toehold in the industry, to increase their market share."

RDA Hunter, HunterNet and the Hunter Business Chamber have provided seed funding for the initiative.

NIOA picks up Kiwi industry award

NIOA has received a 2018 NZ [Minister of Defence Award of Excellence](#) for their role in the delivery of the NZ Defence Sniper Rifle Replacement project.

"As in previous years, the calibre of nominations was very strong"

NIOA was a finalist in Award Category 2 which recognises the provision of a product to Defence less than \$15 million.

In 2016, NIOA took part in an open tender to replace NZDF's existing sniper rifle with a new .338 Lapua Magnum weapon system. Barrett's MRAD (Multi Role Adaptive Design) rifle was selected, whilst the .50BMG Barrett M107A1 was subsequently chosen for the anti-materiel rifle role.

NIOA helped provide a complete systems solution for both rifles, which included the rifle system itself, optics, ballistic computers and other associated ancillary equipment.



NIOA General Manager of Government Business Patrick Whitty (left) receives the award from NZ Minister of Defence, Ron Mark. NIOA

NIOA's General Manager of Government Business Patrick Whitty received the award at the annual the NZ Defence Industry Association Forum.

"It's a great honour to be recognised for the hard work and dedication that both the NZDF and NIOA have put into this project," Whitty said. "I'd like to thank the team at the NZ Defence Capability Branch for their professionalism throughout the process. They are always a pleasure to work with and greatly assisted us in making sure the weapon system and ancillary equipment were fit for purpose."

The awards were established by the NZ Defence Industry Advisory Council (NZDIAC) in 1998 to highlight and reward the contribution made by industry to Defence.

"Maintaining a force which is combat capable, flexible, and able to respond to the complex array of challenges we face as a nation will require the support of suppliers who can deliver capabilities which are able to meet these needs," Minister of Defence Ron Mark said in his closing speech to the forum.

"The annual awards are an opportunity to recognise industry's significant contributions to Defence and, as in previous years, the calibre of nominations was very strong."

Australian companies on show at Euronaval

Euronaval is one of the biggest naval shows in the world, held every two years in Paris. This year there was a major Australian contingent interfacing with European shipbuilders and component suppliers.

Australian Pump operates as both the Representative Office and Distributor for CIRCOR IMO Allweiler. They were able to participate in talks with CIRCOR pump representatives from the European and US sides of the business.



Aussie Pumps were able to participate in talks with CIRCOR pump representatives at Euronaval.

AUSTRALIAN PUMP

“Both BAE staff and Naval Group are vitally interested in building a global supply chain”

Discussions were held with a view to collaborate and review technical data transfer on the Australian build of pumps for both the Type 26 Frigate and Naval Group’s Future Submarine.

“Both BAE staff and Naval Group are vitally interested in building a global supply chain that will provide competitive products for the initial build programs, and an in-country sustainment capability that is ongoing,” Aussie Pump’s Warwick Lorenz said to ADM.

CIRCOR’s Pump Division includes IMO Pump, Allweiler, Warren Pumps and Portland Valve. CIRCOR plays a major role in the US Navy’s nuclear-powered vessels, and also has equipment on DDG51 and DDG1000 platforms.

In Australia, IMO and Allweiler pumps are used on a wide range of Navy vessels, from Collins-class to FFG, the Anzac Class, and Australia’s new DDGs.

“We’ve done a lot of work on putting together foundry and heavy machine shop capabilities in Australia. That will enable us to work as an effective manufacturer of products developed in conjunction with CIRCOR for our Australian requirements,” Lorenz said.

MOST READ ONLINE AT WWW.AUSTRALIANDEFENCE.COM.AU



1. [1. First Australian F-35s at RAAF Williamtown](#)
2. [2. Construction begins on first Arafura class OPV](#)
3. [3. US Hornet and KC-130 in ‘mishap’ off Japan](#)
4. [4. Serco to support RWS and sensors for RAN](#)
5. [5. OneSKY hits key milestones](#)

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Forthcoming Events

ADM EVENTS

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

- [ADM Congress 2019](#) – 13 February 2019
- [ADM Space Summit](#) – 30 April 2019
- [ADM STEM and Defence Summit](#) – August, 2019 (TBA)
- [ADM Defence Estate and Base Services Summit](#) – 12 September, 2019
- [ADM North Australian Defence Summit](#) – 23-24 October 2019

AIDN National Gala Dinner 2019

Date 13 February 2019

Location: National Gallery of Australia, Canberra

Website consec.eventsair.com/aidn-2019/dinner/site/register

The AIDN National Gala Dinner will be held at the stunning Gandel Hall, National Gallery of Australia on Wednesday 13 February 2019 commencing with pre dinner drinks and networking from 7.00pm. Guests will enjoy an evening of networking, socialising and fun which includes a VIP guest speaker, presentation of the AIDN National Young Achiever Award and Silent Auction with all proceeds donated to Legacy.

Avalon Airshow 2019

Date: 26 February – 3 March 2019

Location: Avalon Airport

Website: airshow.com.au/airshow2019

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 indexasia.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 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 8-10 October 2019

Location Sydney Convention Centre

Website 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

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.