

PREMIUM EDITION

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Hopes up for Airbus C295 battlelifter for ADF

Airbus Military has signed a firm contract with the Ministry of Defence of Kazakhstan, to supply two C295 military transport aircraft plus the related service support package for spare parts and ground support equipment. The aircraft will be operated by the Kazakh Air Force in support of transport missions throughout the nation's vast territory.

Additionally, a Memorandum of Understanding (MOU) has been signed for a further six C295 aircraft, for which separate firm contracts will be signed progressively over the next few years. The first two aircraft will be delivered by April 2013 and for the remaining six aircraft a delivery schedule will be defined over the following years.

All of which brings us to Australia's own requirement for a battle lifter to replace the **Caribou** and improved prospects for the C-295 versus the Alenia C-27J – a mini-C130 which, due to its acquisition by the US military and thus the opportunity for interoperability support benefits, was preferred by the RAAF.

But US defence cuts have forced the early retirement of the C-27J fleet and thus raised concerns about long term support and the future availability of spares. Indeed the head of Alenia is reported as saying the company would refuse to support the 21 C-27J aircraft that the US has bought so far (from an original 145 aircraft deal) if onsold to another country such as Australia, Canada or Taiwan.

Alenia has since released information to the effect that it would support an Australian C-27J regardless of the acquisition strategy the government pursues.

The Australian government announced last year that the C-27J was first choice because it could perform the Caribou role and was in US service.

But the head of Airbus Military's Australian program, **Valentin Merino**, says the claimed benefits of Australia buying the C-27J through FMS were fast disappearing with questions now over sustainment and supportability of the Australian fleet.

In a briefing to journalists this week, Airbus Military was keen to emphasise the importance of a competition that would generate tender quality data for the commonwealth to work from.

This would also give the C295 a chance to see if the carrying of a single G Wagon was really the priority concern cited by the RAAF. Given that the new G Wagon is unable to be reversed into a C130J, let alone either a C295 or C-27J, thanks to the height of the new modules on the back, the company has questioned the doctrine behind such a consideration. When would a single G Wagon be deployed?

Given the **Air 8000** will be going to government for consideration in the coming months, we shall watch with baited breath to see what road government pursues.

Frost & Sullivan on the C4ISR market

The European market is gravitating towards greater command and control, communications, computers (C2), intelligence, surveillance and reconnaissance (C4ISR) integration among the air, land and naval services at the national level, and among nationals at the North Atlantic Treaty Organization (NATO)-led coalition level.

In the face of rising upheavals, NATO is looking for synergy in coalition forces, through greater integration of largely disparate national resources.

Most of these synergies can be achieved by migrating C4ISR on service-oriented architecture (SOA) based federated system.

New analysis from **Frost & Sullivan**, titled "European C4ISR Market Assessment," finds that the total spending on the market was \$13.70 billion in 2011 and expects this to reach \$15.02 billion in 2020, at a compound annual growth rate (CAGR) of 1.02 per cent. The C4ISR market is receiving a huge boost from increased end-user investments in integration projects involving satellite communication/tactical command (SATCOM/TACOM) networks and strategic C2 systems.

Other projects that are likely to earn substantial revenues are integration projects involving surveillance platforms, fire control and C2 systems; vehicular integrated communications (VIC), C2 and surveillance systems; as well as software-defined radio (SDR) upgrades on VIC/ high channel density receiver (HCDR).

Reconnaissance and targeting systems; datalinks-based air and missile defence (AMD) network backbone; and intelligence/image processing, exploitation and distribution (PED) also have significant revenue-generating potential.

"The market will also see higher spending on tactical network upgrades and vehicular C4 systems procurements/upgrades, based essentially on SDR technologies," notes Ahmed.

However, continued adoption of interim SDR equipment and COTS wireless networks puts pressure on common SDR initiatives across the Atlantic, potentially inhibiting the much anticipated migration.

Room for a 6th MRTT?

At a press briefing this week, **Airbus Military** expanded on their unsolicited proposal for a 6th MRTT, as announced in DWP last week.

Valentin Merino, who managed the MRTT project for Airbus Military, said that the company was keen to still explore the 5+3 option that expired in 2006.

He spoke of the 200 skilled conversion jobs at **Qantas Defence Services (QDS)** that would benefit from such a move and the potential to do further conversion there should the company win the Indian tanker competition. The company is hoping to hear from the Commonwealth by the end of the financial year about a decision.

However, **ADM** understands that **QDS** is turning the conversion hangar into an MRO facility (see the February edition of **ADM** with a *From the Source* interview with Qantas Aviation Services **Glenn Brown** for more) and has no further plans to undertake further conversion work.

But if Airbus Military comes back to QDS with a firm plan for more conversion work, who knows what will happen. And another MRTT to sustain wouldn't hurt the books either. Stay tuned.

TPQ-53 radar contract for LockMart

The US Army has awarded a fixed price \$881 million contract to Lockheed Martin for the **AN/TPQ-53 Firefinder Radar**. The award is for a base year and two option years, which could yield up to 51 systems.

The base year is \$166 million that will produce 12 systems.

The AN/TPQ-53 provides improved operational and physical functionality over existing AN/TPQ 36 radars systems. The radar detects in-flight projectiles at greater ranges and determines and communicates the firing point locations with a high degree of accuracy. It does this with a low false alarm rate, and with an improved coverage pattern. This capability allows for more effective detection and counter-battery actions.

The AN/TPQ-36 Radar was introduced into Australian service in 1987 under **LAND 58**. A total of seven radars, a simulator, plus support and test equipment were purchased. Since then Raytheon Australia has upgraded the radars which are capable of locating (detecting and providing targeting data) mortars, guns and rockets in the tactical land environment.

The Land 58 upgrade ensures the radar's interoperability with the Land 17 Battle Management System - Fires (BMS-F) and AFATDS through the digital exchange of Target Location Data as well as Command and Control parameters using the Variable Message Format (VMF) protocol.

The TPQ-36 also has a role in Afghanistan where, in addition to the Giraffe AMB radar, the ADF's initial C-RAM 1 capability at Tarin Kowt includes the AN/TPQ-48 Lightweight Counter Mortar Radar and the upgraded AN/TPQ-36 Firefinder weapon-locating radar system, which can now detect and track incoming rocket and mortar rounds. Once a threat is detected, audio and visual alarms sound to warn exposed soldiers to seek cover. We suspect that the upgrade virtually equates the TPQ-36 to TPQ-53 capability.

We too for U2?

With the venerable **U-2 spy plane** winning the vote of confidence over the unmanned **RQ-4 Global Hawk** in the US federal budget does this put paid to **Northrop Grumman's** hopes for Global Hawk sales to the RAAF under **Air 7000**?

According to the budget proposal the US administration proposes to end production of the Global Hawk unmanned aerial reconnaissance vehicle. "High altitude reconnaissance operations will continue with the manned U-2 aircraft which can perform the same missions as the Global Hawk, but at a lower cost," the proposal said.

The U-2S is a single-seat, single-engine, high-altitude/near space reconnaissance and surveillance aircraft providing signals, imagery, and electronic measurements and signature intelligence.

Long and narrow wings give the U-2 glider-like characteristics and allow it to quickly lift heavy sensor payloads to unmatched altitudes, keeping them there for extended periods of time.

The U-2 is capable of gathering a variety of imagery, including multi-spectral electro-optic, infrared, and synthetic aperture radar products which can be stored or sent to ground exploitation centres.

In addition, it also supports high-resolution, broad-area synoptic coverage provided by the optical bar camera producing traditional film products which are developed and analyzed after landing.

All intelligence products except for wet film can be transmitted in near real-time anywhere in the world via air-to-ground or air-to-satellite data links, rapidly providing critical information to combatant commanders, providing indications of recent activity in areas of interest and revealing efforts to conceal the placement or true nature of man-made objects. The USAF currently has an active force of 33 aircraft including five two-seat trainers and two ER-2s operated by NASA.

Under Air 7000 Defence is developing options for the acquisition of a high-altitude, long-endurance UAS capability that can perform surveillance and reconnaissance tasks as part of the proposed broad area maritime surveillance capability that will replace the missions currently performed by the Orion AP-3C aircraft.

As an interim cost-saving solution to replace the ageing Orions could we not prevail on our US allies to provide U-2 overflights in our regions of interest, providing us with imagery and other intelligence at cost? Alternatively could we not lease U-2 aircraft in sufficient numbers to perform maritime patrol missions ourselves? Perhaps the U-2 has already been considered as a short term option for Phase 1B.

Boeing delivers first P-8A Poseidon to USN; Air 7000 Ph2b solution?

On March 4 **Boeing** officially delivered the first production **P-8A Poseidon** aircraft to the US Navy in Seattle. The P-8A is the first of 13 anti-submarine warfare, anti-surface warfare, intelligence, surveillance and reconnaissance aircraft Boeing will deliver as part of a low-rate initial production (LRIP) contract awarded in 2011.

Following delivery in Seattle, Navy pilots flew the first production P-8A, LRIP1-1, to

Naval Air Station Jacksonville, Florida, where it will be used for aircrew training. Along with production aircraft, the P-8A team also has built and is testing six flight-test and two ground-test aircraft. The flight-test aircraft are based at Naval Air Station Patuxent River, Maryland, and have completed more than 1500 flight hours.

A derivative of the Next-Generation 737-800, the Poseidon is built by a Boeing-led industry team that includes CFM International, Northrop Grumman, Raytheon, Spirit AeroSystems, BAE Systems and GE Aviation.

The US Navy plans to purchase 117 Boeing 737-based P-8A aircraft to replace its P-3 fleet. Initial operational capability is planned for 2013.

It is anticipated that eight P-8As will be acquired as the fixed wing component to replace the current **AP-3C Orion maritime patrol aircraft fleet** under **Air 7000 Phase 2B** Maritime Patrol Aircraft Replacement.

Invitation to apply for SADI Funding

Do you have a current defence contract? Are you planning on tendering for a defence contract within the next 12 months? Do you have staff working on defence capabilities that require upskilling in a trade, technical or professional skill set? |

If the answer is 'Yes' to these questions then the **Skilling Australia's Defence Industry (SADI) Program** might be of interest to you.

SADI is a reimbursement grant program that has over \$13 million to allocate to eligible defence industry companies to assist with their training needs for the 2012/13 financial year. In response to an independently conducted review, SADI is undergoing some major changes in order to better serve defence industry's needs.

New funding models are currently being considered alongside the individual funding round offered in previous years.

The next round of funding is expected to be announced by the Minister for Defence Materiel in **March or April 2012**.

When the funding round is announced by the Minister for Defence Materiel, applicants are encouraged to visit the SADI website - www.defence.gov.au/dmo/id/sadi/ - to gain information on how to apply and to download the supplementary program information.

INTERNATIONAL NEWS

BrahMos cruise missile successfully test fired

The **Indian Army** has successfully test fired the 290-Km range **BrahMos supersonic cruise missile** at the Pokharan range in Jaisalmer to operationalise the second regiment of the weapon system in service.

"In conformity and pursuit of operational and strategic surface to surface missile capability development, the second BrahMos unit of Indian Army has been operationalised. The Indian Army unit successfully launched BrahMos missile and destroyed the pre-selected target in the field firing ranges in Rajasthan," an Army spokesperson said in Jaisalmer on Sunday.

The Army has so far placed orders for three regiments of the supersonic cruise missile and with Sunday's test firing, two of them have been inducted operationally.

The Defence Ministry has also given a go ahead to the Army to induct a third regiment for being deployed in Arunachal Pradesh along the China border. One regiment of the 290-km range BrahMos consists around 65 missiles, five mobile autonomous launchers on Tatra vehicles and two mobile command posts, among other equipment.

BrahMos Aerospace, an Indo-Russian Joint venture company headed by A Sivathanu Pillai, is also working to develop the submarine launched, air launched and a hypersonic version of the missile in the near future.

It has already been inducted into the Navy and is deployed on almost all the front line surface warships of the maritime force.—defpro.com/DD India

Serco wins UK MOD business services contract

The **UK Ministry of Defence (MOD)** business services management contract has been awarded to **Serco** subject to a 10-day standstill period. The contract is part of a long-term program to radically transform the way corporate services are provided.

Defence Business Services (DBS) stood up on 4 July 2011 and provides a range of corporate services, including human resources, finance, information and vetting, from a single structure to all areas of the Department.

Serco will work with DBS to transform the organisation into an efficient shared services centre which builds on private sector best practice.

Over its four-year duration, the value of the contract is around £36 million, but there is an option for the Department to extend this for a further year. The contract is based on a zero management fee, with all Serco's earnings being performance-related.

Serco will be strongly incentivised (*love that word—Ed.*) to drive down costs and deliver efficiencies, and savings in the order of around £71 million are expected to be achievable over the life of the contract.

Sukhoi wins Russian contract for 92 Su-34 frontline bombers

The Minister of Defence of the Russian Federation, **Anatoly Serdyukov**, and the General Director of the Sukhoi Company, **Igor Ozar**, signed a state contract for the delivery of 92 **Su-34** frontline bombers by 2020. JSC Novosibirsk Aircraft Production Association currently carries out serial production of the Su-34 under an existing contract for the delivery of 32 Su-34 aircraft signed in 2008. Ten fighter-bombers have already been delivered.

Serdyukov called this contract one of the largest military aircraft delivery contracts within the framework of the State Arms program for 2011-2020. Implementation of the contract will allow replacement of in service Su-24 fighter-bombers in the nearest future.

Su-34 performance and combat capabilities fully comply with Air Force requirements as confirmed by joint state tests finished in September 2011. Su-34 4+ generation fighter-bomber is able to reach ground, sea and air targets in all-day and -night and all-weather conditions using all weapons, including high precision types.

Active safety systems along with new generation computers allow to create additional opportunities for pilot and navigator to carry out precision bombing.

The Su-34 fighter bomber is a derivative of the Su-27 fighter aircraft. The aircraft design retains the basic layout and construction of the Su-27 airframe, with a conventional high-wing configuration and a substantial part of the onboard equipment.

The Su-34 has a changed contour of the nose section to accommodate an advanced multi-mode phased array radar with terrain following and terrain avoidance modes. It has a two-seat rather than single-seat cockpit. The capacity of the internal fuel tanks has been increased with a resulting increased take-off weight. Changes have been made to the central tail boom for a rear-facing radar.

JSF: F-35 performance requirements relaxed

The **Pentagon** has relaxed the performance requirements for the **Joint Strike Fighter**, allowing the Air Force F-35A variant to exceed its previous combat radius - a benchmark it previously missed - and granting the Marine Corps F-35B nearly 10 percent additional runway length for short take-offs, according to US Defense Department sources.

Last April, the Pentagon reported to Congress in a selected acquisition report that "based on updated estimate of engine bleed," the F-35A would have a combat radius of 584 nautical miles, below its threshold - set in 2002 - of 590 nautical miles.

To extend the F-35A's combat radius, the Joint Requirements Oversight Council (JROC) agreed to a less-demanding flight profile that assumes near-ideal cruise altitude and airspeed, factors that permit more efficient fuel consumption.

This would allow the estimate to be extended to 613 nautical miles, according to sources familiar with the revised requirement.

The estimated combat radius of the short-take-off variant, which is being developed for the Marine Corps, is 15 per cent lower than the original JSF program goal even though the aircraft is slated to carry fewer weapons than originally intended, according to the April report.

The short-take-off-and-landing KPP before the JROC review last month was 550 feet. In April 2011, the Pentagon estimated that the STOVL variant could execute a short take-off in 544 feet while carrying two Joint Direct Attack Munitions and two AIM-120 missiles internally, as well as enough fuel to fly 450 nautical miles.

By last month, that take-off distance estimate grew to 568 feet, according to DOD sources. The JROC, accordingly, agreed to extend the required take-off distance to 600 feet, according to DOD officials—*Insidedefense.com*

JSF: Lockheed Martin penalised for 'management problems'

The **US Defense Department** will penalise **Lockheed Martin** for management problems by curtailing payments under the latest multibillion-dollar, low-rate production contract for the F-35 Joint Strike Fighter.

The Defense Contract Management Agency today sent Lockheed a letter announcing plans to curb DOD payments by 2 percent for the \$4 billion deal, which covers the F-35's fifth lot of low-rate production, Lockheed spokesman Joe Stout told InsideDefense.com. DOD estimates the withholding will amount to approximately \$1 million per month.

"The DCMA informed us February 28 that it intends to withhold some funds against the F-35 LRIP 5 contract in accordance with the business systems clause of the contract," he said. "This is a step that's available to the customer under the terms of the contract. The letter states that the DCMA intends to withhold at the rate of 2 per cent."

New fleet tankers for Royal Navy

A new generation of 37,000-tonne tankers have been ordered for the **Royal Navy** fleet, the MoD announced recently.

The new **Military Afloat Reach and Sustainability (MARS) tankers** will maintain the Royal Navy's ability to refuel at sea and will provide fuel to warships and task groups. They will support deployed amphibious, land and air forces close to the shore, will be able to operate helicopters and are planned to enter service from 2016, replacing existing Royal Fleet Auxiliary (RFA) single hulled tankers.

At over 200 metres long, the four tankers will be approximately the same length as 14 double decker buses and can pump enough fuel to fill two Olympic sized swimming pools in an hour.

Minister for Defence Equipment Support and Technology, Peter Luff, announced that **Daewoo Shipbuilding and Marine Engineering (DSME)** is the Government's preferred bidder for the deal.

The Minister said that this bid represents the best value for taxpayers' money, with £452 million to be spent on the four new vessels to support the Royal Navy on operations around the world. A number of British companies took part in the competition, but none submitted a final bid for the build contract. In light of this, the Minister concluded that the best option for Defence and value for money for taxpayers was for the tankers to be constructed in South Korea by DSME.

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