

Defense Update

DEFENSE-UPDATE ASIA-PACIFIC



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Airbus A330 MRTT Wins Indian Tanker Tender over Russian IL-78

Defense News reports Airbus Military came as the lowest bidder (L1) for a one billion dollar tender to supply six new aerial tankers to the Indian Air Force (IAF). Defense News reports that although the base price of the competing IL78 was lower, when factoring total life cycle support costs, the European consortium's bid was lower. According to the IAF, the A330 outperforms the Russian IL-78 offering more economical high altitude cruising, which significantly lowers its operating cost. Airbus used the same advantage beating Boeing in the first round of the KC-X aerial tanker tender for the US Air Force.

The Indian Air Force is using six IL-78 flying tankers bought from Uzbekistan and equipped with refueling systems provided by Israel Aerospace Industries Bedek Division. The IAF plans to buy 12 additional tankers – six will apparently be the A330 and the remaining six could be either A330 or IL78. It was the second time India selects the A330 – the former tender in 2006 was cancelled after disagreement between the IAF and the Indian Finance Ministry.

The tankers will operate from the Panagarh Air Base in the eastern state of West Bengal, supporting Su-30MKI fighter jets, extending their operational range well beyond the Himalayas.

Chinook Bags a Second Helicopter Win for Boeing in India

Boeing was selected the lowest bidder (L1) in an Indian Government tender to acquire 15 heavy lift helicopters for the Indian Air Force. Boeing's offer of the tandem-rotor Chinook CH-47D heavy lift helicopter defeated the competitor's bid made by Russian Helicopters offering the Mi-26, along with Moscow's official defense exporter Rosoboronexport. This selection was the second win for Boeing in India in the past month. In addition, the company is also supplying India with 10 C-17 heavy lift transport aircraft and up to 24 P-8I maritime surveillance aircraft, representing around US\$10 billions in orders.

The IAF will use these helicopters to supply heavy-duty equipment in the higher reaches in the northern and northeastern states and will replace the existing fleet of Mi-26 choppers acquired by it in the Soviet era.

New Delhi will now enter commercial negotiations with Boeing to finalize details about pricing and procurement and 30 year support outlined in the offer.



South Korea is offering 12 FA-50 light attack jet fighters to the Philippines at a cost of \$438 million. The aircraft is already on order for the Korean Air Force; the trainer version has also been selected by Indonesia.

Manila to Acquire Five Patrol Boats in France

The Philippines Government plans to acquire from France five new patrol vessels strengthening the Philippines Coast Guards operating at the Western Sea; the acquisition is expected to cost up to US\$117 million. According to the Coast Guards commandant for operations RADM Luis Tuason. One of the vessels will be 82 meter Offshore Patrol Vessel while the other four will be 24 meter patrol boats. Tuason said the funding for the acquisition will come directly from the President Office. The four PBs will arrive in December 2013 and the OPV will arrive in the Philippines in 2014. The Coast Guards plans to operate these vessels from a new facility at Ulugay Palawan. The Palawan region, the largest province in the country, also locates the Malampaya natural gas project. The sea in this region is often rough and high, thus requiring larger, more durable operating vessels. Two additional Coast Guard units vessels

are expected to undergo refurbishment next year, to support these operations. ([Manila Standard](#))

Philippine Frigates to Mount Israeli Remotely Controlled Guns

The second US Hamilton Class cutter sold to the Philippines Navy, to be renamed BRP Alcaraz, is expected to arrive at the Philippines in February, after undergoing refurbishment and refitted with weapon systems acquired by the Philippines. The first ship of this class was delivered last year and has been renamed BRP Gregorio del Pilar. It has been deployed to the West Philippine Sea to secure energy projects in the area.

The vessel will be refitted with Mk38 Mod 2 remotely controlled weapon stations to be provided by BAE Systems under a \$1.9 contract awarded to the company last week. The Mk38 Mod 2 is based on the Typhoon Weapon Station developed by Israel's RAFAEL and produced under cooperation between Rafael and BAE Systems. The guns to be installed on these weapon stations are the M242 Bushmasters, effective to a range of

about two kilometers. The stabilized weapon system enables the vessel to engage targets at all ranges with high accuracy, even at high sea.

Manila Considers Buying a Dozen FA-50 Fighters from Korea for \$438 Million

South Korea is offering 12 FA-50 light attack jet fighters to the Philippines at a cost of \$438 million. The Philippine Air Force has negotiated acquiring a squadron of refurbished and modernized F-16 to replace or augment the S211 trainers and OV-10 Broncos used for strike missions. However, it seems the cost of these F-16s would be prohibitive, given Manila's expansive shopping list.

The PAF is also planning to acquire 10 attack helicopters, replacing existing MD520 light scouts in addition to the eight PZL-Swidnik Sokol helicopters already acquired from Poland.



Boeing has delivered to Korea the fourth and last B737 AEW aircraft under the Peace Eye program. The aircraft was delivered five weeks ahead of schedule. The third aircraft was delivered in May 2012.

Boeing Completes Delivery of Peace Eye AEW Aircraft

Boeing has delivered to Korea the fourth and last B737 AEW aircraft under the Peace Eye program. The aircraft was delivered five weeks ahead of schedule. The third aircraft was delivered in May 2012. Boeing acknowledged the contribution of its local partners in Korea for the efficient completion of the program. For this program Boeing has partnered with five major suppliers.

The AEW&C team has delivered all ground support segments for mission crew training, mission support and system maintenance to ROKAF Base Gimhae, the Peace Eye fleet's main operating base.

Boeing is providing on-site technical support, training and spare parts as part of an interim support program. This allows seamless support of the Peace Eye fleet as it transitions to a through-life support program. To date Boeing has delivered ten B737 AEW&C aircraft – six to Australia and four to South Korea. Additional four are currently in production for Turkey.

Torpedo Launchers for the Australian Hobart Guided Missile Destroyers

The Australian Navy has tested the torpedo launchers developed for the new Hobart Class Air Warfare Destroyers (AWD), as part of the acceptance testing of the weapon systems for the second destroyer Brisbane. The tests involved firing an MU-90 practice delivery torpedo from an MK32 Mod 9 Surface Vessel torpedo tube. All three destroyers will have MK32 Mod 9 torpedo launchers installed in the port and starboard magazine compartments of the ship. The system comprises a launcher, an air charging panel and a torpedo-loading tray. The launchers are designed to deploy lightweight torpedoes against enemy submarines. The launchers for the lead ship Hobart have already been received after acceptance tests completed in June.

Video footage of the testing is available at www.defence.gov.au/video In

Speedy Delivery: 6th C-17A Delivered Five Months After Order Placement

Boeing delivered the sixth Royal Australian Air Force (RAAF) C-17 Globemaster III on November 1, 2012. RAAF Chief of Air Force, Air Marshal Geoff Brown accepted the aircraft at Boeing's final assembly line at Long Beach, CA. The delivery of the aircraft came only five months after the contract award in June 2012. The airlifter will be assigned to No. 36 Squadron at RAAF Base Amberley near Brisbane, where it will help meet increased demand for airlift to support military, humanitarian and peacekeeping operations.

Boeing has delivered 248 C-17s worldwide, including 218 to the U.S. Air Force active duty, Guard and Reserve units. A total of 30 C-17s have been delivered to Australia, Canada, Qatar, the United Arab Emirates, the United Kingdom and the 12-member Strategic Airlift Capability initiative of NATO and Partnership for Peace nations. India has 10 C-17s on order for delivery in 2013 and 2014.



India Considers Cutting Third of its Planned FGFA Fighter Order

Fresh tensions in Indo-Russian bilateral ties are bound to surface soon as India plans to cut its Fifth Generation Fighter Aircraft (FGFA) order by one-third. India will now be inducting only 144 FGFA fighters, 70 less than the 214 originally scheduled. The reduced purchase size would be needed to accommodate potential interest in the Lockheed Martin F-35A aircraft, which had earlier been rejected by both the Indian Air Force and the Defense Ministry. Both of these organizations have denied the F-35 rumors.

Significantly, all of the 144 FGFA India now intends to purchase will be single-seater jets. Earlier, the Indian Air Force planned to procure 214 units – 166 single-seaters and 48 twin-seaters.

India's decision to reduce the number of jets it will purchase was driven primarily by two overarching concerns: production delays and cost over-runs, both of which have been major irritants

in Indo-Russian defense ties. The first prototype of the fighter jet is likely to be delivered to India in 2014, followed by additional planes in 2017 and 2019. Earlier, India expected to induct the jets into service sometime between 2017 and 2018. Recently Russia said the FGFA would not be delivered until 2020.

([The Diplomat](#))

India plans to begin producing an export variant of the FGFA in 2020, Russian Defense Minister Anatoly Serdyukov said recently during a visit to Delhi. "The technical characteristics have been confirmed to our (Russia and India) defense ministries. We propose serial production of the plane should start by 2020," Serdyukov said following the meeting of an Indian-Russian intergovernmental commission.

Based on the T-50 multirole stealth fighter jet prototype, the FGFA will feature an electronically-scanned active-array radar, supercruise capability, high maneuverability and low radar and infrared signatures.

Japan Aims To Launch F-3 Development In 2016-17

Japan has set a requirement for a 'post-F-35 fighters' around 2030. According to Aviation Week reporting from Japan Aerospace, Tokyo plans to begin developing a homegrown fighter within five years, with the aim of beginning production under the designation F-3 around 2027. Japan's defense ministry wants to lay the groundwork to go its own way by investing in stealth technology and building its own powerful fighter engine.

IHI Corp. is to develop a technology-demonstrator engine of 15 metric tons (33,000 lb.) thrust, Aviation Week said. Mitsubishi Heavy Industries is already building a small airframe technology demonstrator, the ATD-X Shinshin, which the ministry expects to test in the fiscal year beginning April 1, 2014. Mitsubishi Heavy is also very likely to build the F-3, which Japanese officials expect will carry a pilot.



Ambala to station first squadron of MMRCAs

First squadron of the 126 air dominance Medium Multi-role Combat Aircraft (MMRCA) to be purchased from France under the \$10.2 billion MMRCA program will be based at the Indian Air Force (IAF) Base at Ambala under the IAF Western Air Command. According to IAF an official, the plans is to base two squadrons of the MMRCAs in Western Air Command (WAC) bordering Pakistan and two squadron in the Eastern Air Command (EAC) bordering China. "The IAF plans to station the first squadron of the Rafale at Ambala," a top IAF official said. Ambala is presently home to the British-built Jaguars and MiG-21s. Prior to the induction, the Ambala airbase – one of the oldest and largest airbases inherited from the Royal Air Force - will undergo refurbishment of the runway and infrastructure building to accommodate the new war birds that are expected to join the IAF's inventory in 2017. ([India Express](#))

Full-scale development would begin in 2016 or 2017 and, according to the ministry's plans, the first prototype would fly in 2024-25. Series production is to begin in 2027 and the type would begin replacing Mitsubishi Heavy Industries F-2 strike fighters in the first half of the 2030s. In the second half of that decade it would begin replacing Boeing F-15Js.

The ministry projects production of about 200 F-35s, which would follow the Lockheed Martin F-35 Lightning into Japanese service.

Japan is also conducting a research effort for what it called the i3 Fighter, a research program lead by the MOD Technical and Research Development Institute. ([Aviation Week](#))

Lockheed Martin working with Mitsubishi on F-35 line

Lockheed Martin is working with Mitsubishi Heavy Industries on a local final assembly and checkout line for the F-35. The first Japanese-produced F-35 is scheduled to roll off Mitsubishi's Nagoya line in 2017, says John Balderson, director of Japan F35 business development for Lockheed Martin. The

initial four aircraft will be delivered from Lockheed Martin's main F-35 line in Fort Worth, Texas. The remaining 38 will be assembled in Japan. Balderson says a team from Lockheed will be assigned to work with Mitsubishi as it develops its F-35 production capabilities. It will comprise engineers specializing in areas such as tooling, quality and production.

Taiwan considers domestic Support of its Patriot missiles

The defense ministry in Taipei said Wednesday (Oct. 24) it will gradually reduce dependence on the United States for the maintenance of Taiwan's Patriot missiles in order to cut costs and improve efficiency.

Taiwan will gradually move toward domestic maintenance of Patriot Advanced Capability-2 (PAC-2) missiles, as was done with the Hawk missile components, Defense Minister Kao Hsueh-chu said at a legislative hearing on the country's defense budget.

He said that since the 9-11 terrorist attacks in the U.S. in 2001, Washington has strengthened its homeland security, which makes it troublesome to ship

weapons back to Taiwan after maintenance.

The minister was responding to ruling Kuomintang Legislator Lin Yufang, who noted that NT\$230 million (US\$7.85 million) has been allocated this year to send Taiwan's aging PAC-2 missiles to the U.S. for maintenance.

Lin pointed out that some components of the PAC missile system will soon reach the end of their 15-year life cycle and he suggested that the ministry look at doing some of the maintenance on the missiles in Taiwan to save costs. ([Focus Taiwan](#))

Israel Could Build Four Corvettes in South Korea

An Israeli delegation is expected to visit Korea to inspect two South Korean shipyards and the vessels they built. Seoul expects a letter of intent from Israel MOD by year's end, to formalize the negotiations to build four corvettes for the Israel Navy. According to press reports, Seoul is offering to build the four 1,400 ton vessels for around \$400 million, significantly lower than European or US competitors.

As Carrier Undergoing Periodic maintenance, Indian Navy is Left with No Aircraft Carrier at Sea

INS Viraat, the aircraft carrier operated by the Indian Navy, arrived in Kochi on Friday for its periodic refit at the Cochin Shipyard (CSL). The work is expected to last at least three months.

Viraat, the Navy's flagship is expected to be dry-docked at the shipyard sometime next week, primarily for the restoration of its underwater surface and gears.

The dry-docking of the decrepit warhorse for another round of preventive maintenance comes in the wake of news from Russia about a further delay in the delivery of INS Vikramaditya, an old Russian aircraft carrier extensively rebuilt for India, which is undergoing repairs following serious steam-boiler malfunctions during sea trials.

The steam-boiler breakdown put paid to the Navy's policy of retaining at least one carrier battle group (CBG) in operation at any given time. The latest development has pushed the delivery date back by another year.

Meanwhile, the construction of India's maiden Indigenous Aircraft

Carrier (IAC) at the CSL has also slipped behind schedule due to the non-delivery of certain qualified critical equipment, including the gear box. The IAC, which was floated out at a low-key ceremony earlier this year, is likely to be taken to the building bay later this year.

The ageing INS Viraat, which underwent a life-enhancing refit at the CSL ahead of its golden jubilee in 2009, is said to be in good shape and is expected to last till 2018, by which time the Navy would have inducted Vikramaditya and, possibly, the IAC as well.

In the refit, INS Viraat's hull and underwater equipment will be cleaned

and probed for corrosion and, if need be, weak hull parts reinforced with fresh metal plates.

The hull of the mammoth vessel, which displaces 28,000 tonnes, will also get a fresh coat of corrosion-resistant paint. Everything underwater — the rudder, propeller and so on — will be checked and made failsafe. Concurrently, the systems and equipment on board the ship will also get a lift as per the Navy's maintenance schedule, naval sources said.

Commissioned into the Royal Navy of the United Kingdom as HMS Hermes on November 18, 1959, the Centaur-class vessel became part of the Indian Navy in 1987. ([The Hindu](#))

India Prepares an International Tender for Six Aerostat-Borne radars

The Indian Air Force is entering the global market to buy six additional aerostat radars for more than \$400 million. Potential bidders include Britain's BAE Systems, U.S. companies Lockheed Martin and Northrop Grumman, France's Thales, Israel Aerospace Industries and Russia's Rosoboronexport. According to defense News, India is currently operating two aerostats carrying Elta Systems radars, delivered by RAFAEL in 2007. State-owned Defence Research and Development Organisation (DRDO) is also developing aerostat prototypes but these are not ready for deployment. According to estimates India would require up to 30 aerostat radars over the next 10 years. These aerostat-borne radars are typically deploy to an altitude of 15,000 ft and cover distances up to 350 km in range. "Each aerostat is capable of providing a three-dimensional, low-altitude coverage equal to more than 40 ground-based radars." ([Defense-News](#)).

Upgraded Indian Submarine Begins Sea Trials in Russia

INS Sindhurakshak, an Indian Navy Kilo Class submarine that went through an upgrading program at the Zvezdochka Shipyard in Northern Russia began a two-week sea trial last week. The submarine that was delivered to India in 1997 entered the \$80 million mid-life upgrade in 2010. The modernization includes complete structural overhaul of the hull, installation of improved control systems, new electronic warfare systems and an integrated weapon control. The submarine is fitted with the 3M-54 Club-S (SS-N-27) anti-ship cruise missile, Indian developed USHUS sonar, CCS-MK communications system and the Porpoise radar. Upon completion of the sea trials the submarine is scheduled for delivery back to India by year's end. INS Sindhurakshak is the fourth, out of ten Kilo Class submarine delivered to India, to complete the mid-life upgrade.

Submarine-Launched BrahMos Ready for Testing by Year's End

Russia is preparing to test fire the Submarine Launched BrahMos hypersonic anti-ship missile from its intended submarine platform by year-end. BrahMos' Russian partner NPO Mashinostroyeniye will perform the trials. A successful test will pave the way for the new weapon's acceptance with the Indian Navy. The test will include a single demonstration firing from a submerged raft. Subsequent launches will be performed after the operational carrier submarine has been chosen and modified to carry the weapon. The submarine launched BrahMos will be launched vertically by gas pressure. Once ejected above water the missile's propulsion will kick in accelerating the weapon to Mach 2+ cruise.

Briefs

Beijing Reshuffles PLA General Positions

The People's Liberation Army (PLA) announced four new General appointments in a major reshuffle that reflects the PLA continued thrust for modernization. Four generals - Fang Fenghui, Zhang Yang, Zhao Keshi and Zhang Youxia - were named to lead four key PLA departments: general staff, general political, general logistics and general armaments. All four are generals from the PLA ground forces, holding leadership positions at major military commands. The announcement followed the nomination of General Ma Xiaotian, recently named commander of the Air Force after holding the post of deputy chief of the general staff.

China's New J-31 Stealth Fighter Takes Off on Maiden Flight

China's J-31, the new stealth fighter prototype developed by AVIC Shenyang Aircraft Corporation (SAC) took off on its maiden flight today, October 31, 2012 on 10:32 Beijing local time. The flight lasted only ten minutes. SAC developed the J-31, China's second stealth fighter prototype, in only 19 months. This model is positioned to become China's leading export fighter. It will also be positioned as an alternative to the larger and assumingly more costly Chengdo J-20. [Defense-Update](#) reports.

New Thai TPS-77 Long Range Air Surveillance Radar Overwatches the Gulf of Thailand

Royal Thai Air Force's recently deployed a TPS-77 radar system, which became the 34th member in Lockheed Martin's family of 3-D, solid-state, L-band long-range surveillance radars operational in the Asia Pacific region. The new radar expands Thailand's long-range air surveillance network capability, providing greater air sovereignty, security and safety over much of the Gulf of Thailand. Other TPS-77 operators in the region include South Korea, Taiwan and Australia.

South Korea Orders 100th Sigma 40 Navigation System

South Korea has ordered its 100th shipborne Sigma 40 inertial navigation system from Sagem, confirming its confidence in the system's laser gyro technology. The Sigma 40 is a high-performance shipborne inertial navigation system widely used by the South Korean navy as original equipment or higher-performance retrofits on both surface vessels and submarines, including PKX patrol boats, FFX frigates and U-209 and KSS-1 submarines.

Raytheon awarded \$45 million MK 54 torpedo contract for the Australian, Indian Navies

Raytheon has been awarded a \$45.3 million U.S. Navy contract to provide MK 54 lightweight torpedo hardware, test equipment, spares and related engineering and repair services for U.S. fleet inventory and in support of foreign military sales to the Royal Australian Navy and the Indian Navy. The award represents an exercised option of a current Navy contract for MK 54 torpedo kits.

Lockheed Martin Eyes Dual Helicopter Bid Strategy for India Deal

Lockheed Martin suggested a mixed helicopter package as it competes for an order for more than \$2 billion worth of maritime aircraft. According to George Barton, vice president for business development at Lockheed Martin Mission Systems and Sensors, Lockheed Martin and United Technologies Corp. (UTX)'s Sikorsky are considering offering India a mix of MH-60R anti-submarine version of the SeaHawk, along with the MH-60S designed for Search and Rescue and at-sea replenishment roles. India is poised to formally kick off the competition for at least 75 naval helicopters.

RTAF Transferred all Remaining F-5s to Ubon Ratchathani Air Base

The Royal Thai Air Force has transferred the remaining F-5B/E fighter aircraft from 701 Squadron, 7th Fighter Wing to the 21st Wing based at Ubon Ratchathani.



Turkey Mulls NATO Patriot Deployment

Ankara plans to request NATO deploy Patriot missile defense systems in its territories in case of escalation of the scale of attacks against Turkey by the Syrian regime. A senior Turkish diplomat says Turkey and NATO have been working on such contingency plans. ([Hurriyet](#))

UK Considers Deploying Typhoons to the UAE

The possible deployment of the Eurofighter Typhoons had followed talks with the United Arab Emirates to bolster the UK's presence in the region at a time when tensions between US, Israel and Iran are increasing and fears that the civil war in Syria spill over to other nations. The decision on whether to send the planes at such a volatile time will be made by Britain's Prime Minister David Cameron, after further talks with the rulers of Dubai and Abu Dhabi, and an announcement is expected to be made soon. ([The Independent](#))

Airborne Early Warning Helicopters for the Indian Army?

"In a first that will give a major boost to the Army's aviation wing, India is planning to procure helicopter-borne early warning systems for the land force. The final specifications for the system are being chalked out, following which a tender process will be initiated this year." India Express wrote two weeks ago.

"The new system could be fitted on board the Army's existing Advanced Light Helicopters (ALH) and will give formation commanders an insight into enemy territory while serving as warning systems for approaching aircraft and armoured units." India Express continued to say : "The project, which would involve developing a new system in collaboration with a foreign partner, can be lucrative for the Indian defence industry, as the final order would be for a large number of the early warning systems."

The Indian Army plans to deploy surveillance and early warning systems on board the Dhruv Advanced Light Helicopters or Light Combat Helicopter (LCH). The new sensors will expand the situational awareness of Army unit's over much larger areas as well as deep into

enemy area. Typical sensors providing such capabilities are synthetic aperture radars (SAR) particularly those operating Ground Moving Target Indicators (GMTI), tracking ground movements with high precision. Various air surveillance radars, similar to those employed by the navy for carrier AEW support, can help create an effective low-level air picture. Other sensors, such as the Longbow radar employed on the AH-64D Apache Longbow helicopter, are also available but often used to support specific attack helicopter missions.

However, the use of such radars on manned helicopter platforms is not common, since fixed wing platforms, particularly unmanned aerial vehicles are far more efficient in such missions, particularly those flying at higher altitudes and on long endurance missions. Helicopters, with their vertical-takeoff and landing and multi-mission capability, prove to be more efficient in direct support, scout, assault, medical evacuation and resupply missions, where the human element is an essential part of the mission.

DEFENSE UPDATE EXECUTIVE EDITION

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