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## The Market of Fighter Aircraft



Fighter aircraft are the most advanced weapon in the modern battlefield. Thus, production and development requires an extended know-how that only few countries have. Currently, only eleven countries produce fighter aircraft: China, France, India, Japan, Russia, Sweden and the United States, while Germany, Italy, Spain and the United Kingdom have formed a consortium

for the production of the Eurofighter Typhoon. Furthermore, fighter aircraft dominate international arms transfers, as they accounted for 27% of the volume of transfers of major weapons over the period 2005–2009. If we take into consideration the weapons and components that are procured for use with fighter aircraft—missiles, bombs, sensors and engines- the dominant position of aircraft is even more apparent as they accounted for around 33% of the volume of transfers.

Russia and USA are the two largest suppliers of fighter aircraft. For the period 2005- 2009



USA exported 331 new F-16C, F/A-18E and F-15E aircraft and produced a similar number of F/A-18E and F-22 aircraft for their own forces. Russia's exported 215 Su-25, Su-27, Su-30 and MiG-29 aircraft. The fighter aircraft of the other countries have export potentiality; nevertheless the countries mainly produce them for their own armed forces.

Apart from the fighter aircraft there are several other types of aircraft with great export potentiality. For example transport aircraft, UAVs and training aircraft. Some of the procurements of aircraft from the aforementioned categories are the following. On 2008 Italy sold (18) G-222 Transport aircraft to Afghanistan. The order was made and financed via USA and the total amount of the procurement was 287 million dollar. The aircraft were previously in service with the Italian air force and before delivered to Afghanistan they will be modernized. Deliveries will be concluded within 2011.

The UAV's market is another important market with great potentiality. UAV design and production is a global activity, with manufacturers all across the world. The United States and Israel were the initial pioneers in this technology and are still two of the biggest developers. This is highlighted by the recent developments in the aforementioned domain. On 2010 Australia procured (18) RQ-7 Shadow-200 UAVs from USA. The total amount of the procurement was 157 million dollar (including 4 control systems). The UAVs were acquired in order to be used in Afghanistan.

Israel exports UAVs even to the so- called first world countries such as France and Germany. On 2009, France procured 1 Heron UAV for 34 million dollar. The procurement included one control station. Deliveries were concluded on 2010 and the UAV was equipped with French surveillance system. Additionally, Israel leased on 2010 (3) Heron UAVs to Germany.

Kyriazis Vasileios,

Epicos Newsletter Head Editor

## Japan Buys Lockheed Martin F-35 Lightning II



On December 19th, 2011, the Japan Ministry of Defence announced the selection of the Lockheed Martin F-35 Lightning II. Definitely, this was a significant development in the fighter aircraft market and highlights the fact that despite the gloomy global economic situation, this market is still active. The purchase price of the contract for the new fighter, dubbed the FX, was not disclosed.

Nevertheless, the order is expected to be valued at more than \$4 billion, making it Japan's most expensive fighter procurement ever and one of the world's largest military contracts this year. The Lockheed Martin aircraft won the contract over Boeing's F-18 Super Hornet and the European consortium Eurofighter GmbH's Typhoon fighter. The main reason of this success was that both Eurofighter Typhoon and F-18 lacked the stealth capabilities of the more advanced F-35.

Mr. Bob Stevens, Lockheed Martin chairman and chief executive officer said that: "We are honoured by the confidence the Japanese government has placed in the F-35 and our industry team to deliver this 5th Generation fighter to the Japan Air Self Defence Force. This announcement begins a new chapter in our long-standing partnership with Japanese industry and builds on the strong security cooperation between the U.S. and Japan".



The F-35 will replace the Japanese Air Self Defense Force's 70 aging F-4 fighters. Japan authorities believe that the jet's advanced technology will be both a deterring factor against potential aggressors such as China and Russia, and will also foster the development of Japan's own aviation industry, as Lockheed Martin agreed to license part of the F-35 production to a consortium of Japanese companies.

Global participation is a centrepiece of the F-35 program and essential for its success and affordability through economies of scale. The program is comprised of nine partner nations: the United States, United Kingdom, Italy, Netherlands, Turkey, Canada, Australia, Denmark and Norway. The United Kingdom and the Netherlands have ordered test aircraft, and Italy and Australia have committed long-lead funding for their initial operational aircraft. In October 2010, Israel selected the F-35A as the Israel Air Force's next generation fighter and is scheduled to receive the F-35 through the U.S. government's Foreign Military Sales process.

Kyriazis Vasileios,

Epicos Newsletter Head Editor

## Epicos "Industrial Cooperation and Offset Projects"



Epicos "Industrial Cooperation and Offset Projects" provides a unique set of online tools enabling the structure, identification and implementation of comprehensive Offsets programs, through a searchable database. By introducing different offset projects and ideas proposed by local A&D industry it ensures the optimum cost for Prime Contractors and reassures that the priorities of local industry are fully met...

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### Automatic, environmental conditions' monitoring system for sensitive ammunition storage using Active-RFID technology



A leading company in the design and development of advanced system-on-chip solutions for next generation RFID systems is proposing the installation of a complete sensitive ammunition environmental monitoring storage system. The system will utilize UWB technology minimizing interferences with other equipment and sensitive ammunition electronics. Storage parameters like temperature, humidity, shocks and vibrations will be automatically measured and reported.

[For Further Information Contact our ICO Department](#)

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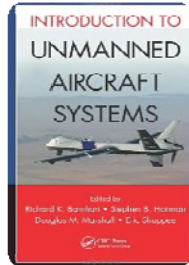
### WiFi Wireless networks to support coverage of large campuses or mobile formations



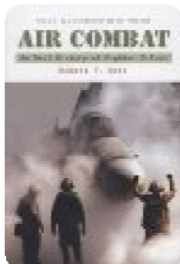
A leading company in the design, development and production of networking infrastructure equipment for carrier and service provider networks, is proposing the implementation of a WiFi solution introducing a completely new WLAN that eliminates the coverage and capacity limitations of traditional WLAN architectures and the need for cell planning and site surveys. This solution is ideal for rapid deployment of mobile formation HQ and other data-on-the-move formations.

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**Introduction to Unmanned Aircraft Systems, Richard K. Barnhart, Stephen B. Hottman, Douglas M. Marshall J.D., Eric Shappee**

Introduction to Unmanned Aircraft Systems is the editors' response to their unsuccessful search for suitable university-level textbooks on this subject. A collection of contributions from top experts, this book applies the depth of their expertise to identify and survey the fundamentals of unmanned aircraft system (UAS) operations. Written from a non engineering civilian operational perspective, the book starts by detailing the history of UASs and then explores current technology and what is expected for the future. Covering all facets of UAS elements and operation—including an examination of safety procedures and human factors—this material gives readers a truly complete and practical understanding of what it takes to safely operate UASs for a variety of missions in the National Airspace System.

**Air Combat: An Oral History of Fighter Pilots by Robert F. Dorr**

Veteran and military author Robert F. Dorr has collected dozens of interviews from combat veterans who have experience what is it like to face the enemy in the sky. Starting from the first days of the World War II and continuing up to now the author have managed to gather a series of interviews that can really illustrate the pressure that a pilot can feel when fighting at 20,000 feet. Each story describes the history, strengths, and weaknesses of each plane in detail, and offers readers a rare glimpse into the minds and hearts of those who dare to fight in the air.



### Russia test fires long-range missile with new warhead

Russia on Tuesday successfully test fired its long range ballistic missile RS-18 from its Baikonur cosmodrome in Kazakhstan with a new warhead aimed at overcoming Western air defence systems, news agencies said.

The RS-18, a warhorse missile known to the West as Stilet (Stileto) that the Russian defence ministry has given a new lease of life, successfully hit its target on the Kamchatka Peninsula on the Pacific, the reports quoted the defence ministry as saying.

The RIA Novosti news agency said that the RS-18 missile was now carrying a new warhead aimed at overcoming missile defence systems at a time of growing tensions over plans for a US missile shield in Europe.

**Source:** 2011 AFP, Agence France-Presse (AFP)

### Australia looks to British sailors facing cuts

Australia's military is looking to recruit foreign troops, particularly those laid-off in Britain where the government has announced cutbacks on defence spending, a report said Tuesday.

The Australian Defence Force has struggled to fill recruitment quotas and was seeking highly skilled specialists such as fighter pilots and submarine crews from overseas, The Australian newspaper said.

The Royal Australian Navy (RAN) recently sent a delegation to Britain to look into the possibility of recruiting recently retrenched sailors, it added.

The Australian Defence Force, which is facing competition for personnel -- particularly engineers -- due to the nation's lucrative mining boom, confirmed that talks had taken place with British officials.

"The Royal Australian Navy has been in talks with the Royal Navy about this possibility and that obviously will depend on those personnel meeting the Royal Australian Navy's requirements," a spokesman told AFP.

He did not comment on whether the military, which has some 1,550 troops in Afghanistan, was prepared to fast-track Australian citizenship for foreign recruits as reported by The Australian.

The development comes after British Prime Minister David Cameron unveiled eight percent cuts to the armed forces budget and set out plans to reduce the size of the army, navy and air force by 17,000 troops.



The report in The Australian said Australian navy chief Ray Griggs had assured his British counterpart that Canberra would not recruit personnel the British needed to maintain their capabilities.

The Australian Defence Force was also looking to other western countries, including the United States, Canada and New Zealand, to build up personnel, particularly for its submarine crews, the newspaper added.

On its website, the Australian Defence Force says it "looks to overseas candidates to fill gaps in our services that can't currently be satisfied by standard recruitment."

It said its navy recruitment programme was aimed at "serving or immediately ex-serving officers and sailors of foreign naval forces (not greater than three years since separation from military service) with specific qualifications and/or experience that is directly transferable to the RAN."

**Source:** 2011 AFP, Agence France-Presse (AFP)

#### **Malaysia Airlines cuts more routes to stem losses**

Flag carrier Malaysia Airlines on Friday said it would cut four more routes in Asia, a week after announcing a suspension to some global destinations as it tries to return to profit.

The airline, which has struggled to stay in the black in recent years, unveiled a business plan last week aimed at becoming profitable by 2013 that would include a route "rationalisation" but did not name the affected routes.

It said it would put a halt to trips from Kota Kinabalu to Osaka and Haneda in Japan, to Perth and to Seoul. The carrier added that the suspensions would come into effect between January and February.

"This suspension is until further notice and is part of our regional network consolidation involving single-aisle aircraft operations," Ahmad Jauhari Yahya, the airlines' chief executive officer, said in a statement.

The airline last week said routes servicing Rome, Johannesburg, Cape Town, Buenos Aires, Karachi, Dubai, the Saudi Arabian city of Dammam, and the city of Surabaya in Indonesia, will be dropped from January.

It plans to instead bolster services to major destinations in Asia that have better prospects. In the third quarter of this year, the airline posted its third straight quarterly loss, owing to high fuel costs and increased competition.

**Source:** 2011 AFP, Agence France-Presse (AFP)



### Le russe Transaero signe l'achat de quatre Boeing Dreamliner

La deuxième compagnie aérienne de Russie, Transaero, a annoncé mardi dans un communiqué avoir signé pour l'achat de quatre Boeing 787 Dreamliner, ne révélant cependant pas le montant du contrat.

"Transaero Airlines, la deuxième compagnie aérienne de Russie, a signé un accord avec Boeing Commercial Airplanes pour quatre appareils Boeing 787 Dreamliner", a indiqué la société russe.

"Nous avons une grande expertise afin d'opérer différents types d'appareils Boeing étant donné que notre coopération a débuté en 1993 lorsque Transaero est devenu la première compagnie aérienne en Russie à voler avec des appareils Boeing", a déclaré la directrice générale de Transaero, Olga Plechakova, citée dans le communiqué.

Transaero précise également que ces Boeing 787 seront utilisés à la fois sur des vols intérieurs et internationaux.

Le Dreamliner est un pari industriel pour Boeing, avec une utilisation massive de matériaux composites qui permet d'alléger l'avion et de réduire sa consommation de carburant d'au moins 20%.

**Source:** 2011 AFP, Agence France-Presse (AFP)

### Raytheon Awarded \$122 Million for Standard Missile-3

TUCSON, Ariz., Dec. 26, 2011 /PRNewswire/ -- Raytheon Company (NYSE: RTN) received a \$122.5 million contract from the U.S. Missile Defense Agency for continued development of Standard Missile-3 Block IA and IB programs. Under this modification, Raytheon will provide SM-3 design and engineering, in service engineering support, production engineering, surveillance and flight test support, and transition to production.

The contract was announced Dec. 22 by the Department of Defense.

#### About SM-3

- Raytheon's SM-3s are designed to defend against short- to intermediate-range ballistic missile threats in the ascent and midcourse phases of flight.

- SM-3 Block IA is Raytheon's first variant in the SM-3 family; it is deployed today in support of the first phase of the administration's Phased Adaptive Approach (PAA) for ballistic missile defense.

- Raytheon has delivered more than 130 SM-3 Block IAs ahead of schedule and under cost.

- The SM-3 Block IB is Raytheon's second variant in the SM-3 family.

- The SM-3 Block IB has an enhanced kinetic warhead seeker, throttleable divert and attitude control system, and advanced signal processing.

- Raytheon's SM-3 Block IB is the cornerstone of phase two of the administration's PAA and is on track for a 2015 deployment at sea and ashore.

#### About Raytheon

Raytheon Company, with 2010 sales of \$25 billion, is a technology and innovation leader specializing in defense, homeland security and other government markets throughout the world. With a history of innovation spanning 89 years, Raytheon provides state-of-the-art electronics, mission systems integration and other capabilities in the areas of sensing; effects; and command, control, communications and intelligence systems, as well as a broad range of mission support services. With headquarters in Waltham, Mass., Raytheon employs 72,000 people worldwide. For more about Raytheon, visit us at [www.raytheon.com](http://www.raytheon.com) and follow us on Twitter at @raytheon.

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**Source:** Raytheon Company