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Japan: Japanese Armed Forces Restructuring and Future Defence Procurements



Japanese armed forces are in a process of modernization and restructuring. The number of units and the structure of them will be reorganized in order to shape an army ready to be able to respond swiftly and deal effectively with an attack on offshore islands and various other situations that an army can face in the modern battlefield. Emphasis will be placed on functions that can be used for

various activities having asymmetric response capability. Under this notion Japan will further strengthen its Ground Self-Defense Force (GSDF), Maritime Self-Defense Forces (MSDF) and the Air Self-Defense Forces (ASDF) with advanced equipment.

More specifically GSDF will review its organization and equipment with a particular focus on tanks and howitzers. Namely, the current number of tanks and howitzers were approximately 700 and 600 respectively at the end of 2013, and will be reduced approximately to 300 and 300 within 10 years.

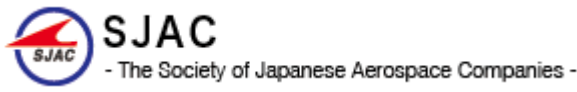
Category		Present (as of the end of FY2013)	Future	
GSDF	Authorized Number of personnel	approx. 159,000	159,000	
	Active-Duty Personnel	approx. 151,000	151,000	
	Reserve-Ready Personnel	approx. 8,000	8,000	
	Major units	Rapid Deployment Units	Central Readiness Force 1 armored division	3 rapid deployment divisions 4 rapid deployment brigades 1 armored division 1 airborne brigade 1 amphibious rapid deployment brigade 1 helicopter brigade
		Regional Deployment Units	8 divisions 6 brigades	5 divisions 2 brigades
	Surface-to-Ship Guided Missile Units	5 surface-to-ship guided missile regiments	5 surface-to-ship guided missile regiments	
	Surface-to-Air Guided Missile Units	8 anti-aircraft artillery groups/regiments	7 anti-aircraft artillery groups/regiments	
MSDF	Major units	Destroyer Units	4 flotillas (8 divisions) 5 divisions	4 flotillas (8 divisions) 6 divisions
		Submarine Units	5 divisions	6 divisions
		Minesweeping Units	1 flotilla	1 flotilla
		Patrol aircraft Units	9 squadrons	9 squadrons
	Major equipment	Destroyers (Aegis-Equipped Destroyers)	47 (6)	54 (8)
	Submarines	16	22	
	Combat Aircraft	approx. 170	approx. 170	
ASDF	Major units	Air Warning & Control Units	8 warning groups 20 warning squadrons	28 warning squadrons
		Fighter Aircraft Units	1 AEW group (2 squadrons) 12 squadrons	1 AEW group (3 squadrons) 13 squadrons
		Air Reconnaissance Units	1 squadron	—
		Air Refueling/Transport Units	1 squadron	2 squadrons
		Air Transport Units	3 squadrons	3 squadrons
	Surface-to-Air Guided Missile Units	6 groups	6 groups	
Major equipment	Combat aircraft	approx. 340	approx. 360	
	Fighters	approx. 260	approx. 280	

Regarding the MSDF the main differentiation is that the number of destroyers will be increased from 48 (12 escort divisions) to 54 (14 escort divisions). Furthermore, two Aegis-equipped destroyers will be added, bringing the fleet to 8. Finally MSDF will maintain the augmented submarine fleet as well as patrol aircraft units in order to patrol surrounding waters and carry out defence operations effectively.

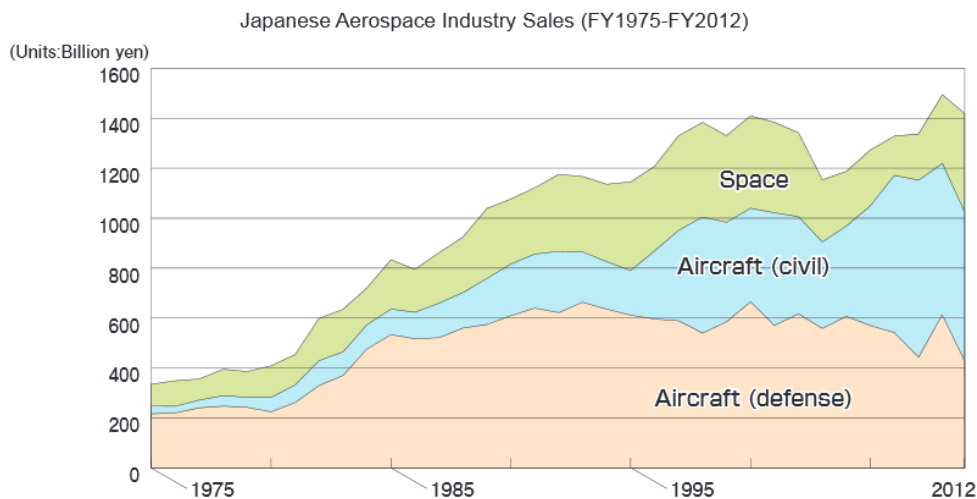
The ASDF planned, to modernize the current F-15 fighters and improve the capability of F-2 fighters, as well as continuingly introduce the F-35A fighters. Finally the ASDF will maintain surface-to-air guided missile units providing multi-layered defence for Japan against ballistic missile attacks.

Kyriazis Vasileios,
Epicos Newsletter Head Editor

Japan: Aerospace Industry Latest Developments & Capabilities



When compared with the automobile, home electric, computer and other industries in Japan, the aerospace industry is still relatively small. Nevertheless, the Japanese aerospace industry is being continually advanced to stand alongside of those in US and EU. It is indicative that as of 2012, a total of 35,411 persons were employed in this industry, with 27,230 and 8,181 persons involved in aircraft-related and space-related activities respectively. Additionally, the industry has steadily increased to a total of 1,483 billion yen (with aircraft-related activities accounting for 1,167 billion yen and space-related activities accounting for 316 billion yen).



Nowadays, the Japanese aircraft manufacturers have the proper capabilities to develop produce and maintain a wide range of defense aircraft such as: Fixed-wing Maritime Patrol Aircraft and Transport Aircraft, Unmanned Aerial Vehicle, trainers as well as a wide range of advanced helicopters such as the OH-1 Light Observation Helicopter, the first helicopter fully developed in Japan. Additionally, Japanese manufacturers produce helicopters under license, such as for the CH-47 (Boeing, heavy transport helicopter) and the UH-60J (Sikorsky, multipurpose helicopter).

In the civil sector, Japan is successfully participating in international joint development projects. Additionally, Japanese companies has developed several indigenous civil aircraft models such as the Mitsubishi Regional Jet (MRJ) 70-90 seater, which has been in full-fledged development since 2008. As of March 2014, more than 300 (including option) of these jets have been ordered.

Japan is also active in the space industry. One of the “success stories” in the specific industry is the “H - II A” that was successfully launched in 2001, which is the country’s main launch vehicle. The “H - II A” was developed by the Japan Aerospace Exploration Agency (JAXA). The launch of H-IIA launch vehicle No. 23 in February 2014 brought the successful launch rate of

the rocket to 96.3%. The Asian country is also active in the domain of satellite production. In May 2012 as part of the Global Change Observation Mission the 1st- Water “SHIZUKU” (GCOM-1W) and Small Demonstration Satellite-4 “SDS-4” were launched by H-IIA Launch Vehicle No. 21.

Principal Japanese Launch Vehicles

Specifications	H- II A	H- II B	Epsilon
Length	53m	57m	24m
Diameter	4.0m	5.2m	2.5m
Gross weight	289t	531t	91t
LEO Launch Capability	10t	16.5t	1.2t
GTO Launch Capability	4.0t	9t	

The Japanese aerospace industry has made significant steps towards the development of a sustainable industrial base. Today, the Japanese aircraft manufacturers are able to develop, produce and maintain a wide range of defense aircraft, such as fighters, transporters, patrol planes, whereas in the civil section Japan is successfully participating in international projects. In addition, in the space industry the country currently is maintaining and implementing its capabilities for rocket launching, satellite tracking, along with command and control. These capabilities enable the country to retain the capacity of exploring space independently.

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...

[For Further Information Press Here](#)

Advanced Ethernet encryption solution for Rapid Deployment Networks and Network Centric Operations

Over time, military means and methods have evolved as has also the related technology. In fact, warfare is undergoing essential changes nowadays. The threat to today's military is real. It's coming from the vast amounts of voice, data and video that need to be transmitted and shared in order to give troops a complete picture of the battlefield. A leading company in the design, development and production of networking infrastructure equipment for carrier and service provider networks, is proposing the implementation of an advanced Ethernet encryption solution to be used in IP based technology Rapid Deployment (data on the move) Networks, as well as in backbone NCW systems. The unit will also provide data encryption in critical military and governmental installations, such as C2 Centers, Ministries, Embassies and other Institutions.

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

Mail at: g-menexis@epicos.com

Development of a miniaturized robust data link to be used in mini UAVs and smart guided weapons

A company with extensive experience in providing advanced wireless communication and data links solutions for various applications is proposing -within the frame of an offset program- collaboration with a Prime Contractor or a local company for the development and deployment of a miniaturized robust data link to be used in mini UAVs and smart guided weapons. The new miniaturized robust data link system could be based on an existing mini data link system already developed and deployed by the company.

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

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**Mexico's Naviera Integral orders two Damen FCS 4008**

Source: Damen

Naviera Integral of Mexico is the launching customer of Damen's new Sea Axe Fast Crew Supply vessel, the FCS 4008. President of Naviera Integral, Juan Pablo Vega is pictured at the official signing ceremony for the two Damen FCS 4008 vessels at the Offshore Energy Exhibition in Amsterdam. A leading company in

offshore transport and supply services with a fleet of 35 vessels, Naviera Integral has already been a customer of Damen since the late nineties, operating more than 20 Damen vessels. The Mexican company was also a pioneer of the Damen flagship Axe Bow vessel, the 5009.

Mr Vega explains: "We choose to invest in Damen vessels because of their quality and this is combined with a very good delivery time, plus Damen provides excellent after sales services and offers creative solutions for financing."

Damen and Naviera Integral have worked very closely on developing the new FCS 4008, which is mainly focused on passenger transport rather than a combination of passengers and cargo. "Naviera Integral is having an increasing focus on passenger transportation and this new 42m vessel has capacity for 100 people."

Naviera Integral's vast experience of operating the Sea Axe 5009 in the Gulf of Mexico has been taken on board with the design of the new FCS 4008, with any suggestions for improvements incorporated in the new FCS type. The vessel combines a steel hull with an aluminium superstructure, which allows the vessel to combine strength with speed.

"Damen Sea Axe vessels have excellent seakeeping characteristics and our client PEMEX sees the benefits of this. The vessels are much more comfortable for the crew and they arrive in better shape to carry out their work. The FCS 4008 is also very fuel efficient, consuming at least 10% less than conventional vessels, which is an important consideration," Mr Vega says.

Naviera Integral's two new vessels are due for delivery in 2016. Mr Vega adds: "We see many opportunities in the Gulf of Mexico given the energy reform, therefore we see these investments as preparing for the future. And we look forward to working with Damen."

For Further Information [Click Here](#)

Embraer holds E-Jets World Operators Conference



Embraer Commercial Aviation is gathering more than 50 airlines and leasing companies, as well as 40 suppliers and commercial partners, on Marco Island, in Florida, U.S., for the world edition of the Embraer Operators Conference (EOC). The event held under the theme of the tenth anniversary of regular operations of the E-Jets, commemorated in March of this year, takes place on November 3 and 4, preceding the 14th edition of the Maintenance Cost Workshop (MCW), promoted by the Services and Support area of Embraer Commercial Aviation, on November 5.

“To gather manufacturer, operators and suppliers is an effective way to exchange information and experiences with operations and maintenance, seeking to increase the operating efficiency of the airlines that operate these jets, which is a key driver of our innovation in customer support,” said Johann Bordais, Vice President Services and Support of Embraer Commercial Aviation. “And for this reason, we have invested in advanced maintenance diagnostic management tools, in order to make our aircraft even more dependable, which, in the end, boosts the operating profitability of our customers.”

At both the EOC and the MCW, Embraer will present its e-Solutions tools based on the platform of the FlyEmbraer site, which is a single connection point for Embraer customers to find a portfolio of digital services at any time, from any device. Designed to maximize flight duration and avoid unnecessary operating costs and delays, it serves as both corrective and preventive maintenance.

Embraer gives support to operators of jets and turboprops around the world, with technical knowledge and a vast services and component supply network. The results are a significant savings in repair and inventory costs, thus reducing the storage space for stocks, practically eliminating the need for funds for repair management, and, finally, ensuring performance levels.

In 2014, Embraer signed important contracts to support its customers' fleets. SkyWest, for example, sealed a 12-year deal for management services of components, by which Embraer will provide support for the entire fleet of E175 jets. The agreement covers over 160 replacement parts. Embraer also signed a 10-year contract with the company to supply the AHEAD-PRO (Aircraft Health Analysis and Diagnosis - PROgnosis) System. Tianjin Airlines, the first customer of the E190 jet in China and the biggest E-Jets operator in Asia, became the launch customer, in China, of the AHEAD-PRO System. It will be installed in Tianjin Airlines' entire fleet of 50 E-Jets.

The MCW is an annual event that is organized to support operators in reducing maintenance costs by sharing experiences, addressing the best market practices, in order to meet the continuous demand for increasing operating efficiency.

The E-Jets hold more than a 50% share of the market, in terms of orders, and 60% of the deliveries in the segment of jets with 70 to 130 seats. The E-Jets are currently operating with 65 airlines in 45 countries.

About Embraer Commercial Aviation Services & Support

Embraer is the world's leading manufacturer of commercial jets that seat up to 130 passengers. Supporting a fleet of over two thousand aircraft, Embraer Commercial Aviation currently has 37 service centers worldwide, including 12 Embraer Authorized Service Centers (EASC) and 25 independent centers, certified by the respective local aviation authorities, servicing E-Jets, the ERJ 145 family, and the Brasilia and Bandeirante turboprops.

Our global Services and Support structure provides prompt responses to a full range of needs, including field and technical support, material and spare parts, flight and maintenance operations consulting, aircraft upgrades and modifications and comprehensive crew and personnel training. It also incorporates eSolutions, a platform of web-based tools on the FlyEmbraer website, which is a single connection point for Embraer customers to find a portfolio of digital services at any time, from any device. Designed to maximize flight duration and avoid unnecessary operating costs and delays, it serves as both corrective and preventive maintenance.

The Pool Program for replacement parts benefits customers through optimized inventory control that reduces the initial cost of investing in spares and infrastructure. More than half of the worldwide E-Jets fleet uses the program.

The Company recently introduced the Embraer Fuel Efficiency Program, a consulting service that furnishes an accurate diagnosis to assist with decision-making for single- or multi-fleet airlines that are looking to save on fuel costs. In addition to the expertise that only a manufacturer can provide, the program includes a web-based tool for monitoring results.

For further information regarding Service and Support for commercial aviation, visit <http://www.embraercommercialaviation.com>



Kuwait awards \$4.8 bn airport expansion project

Kuwait on Monday awarded a contract worth 1.4-billion dinar (\$4.8 billion) to a local company for the expansion of the country's only international airport, an official statement said.

The central tenders committee announced on its website that the contract, one of the oil-rich state's mega projects, was awarded to Kharafi National, Kuwait's leading construction firm.

Under the contract, a new terminal for Kuwait International Airport and a new runway will be built in addition to around 30 gates to boost the facility's capacity from the current seven million passengers to 13 million in 2016.

The capacity is slated to increase to 25 million passengers by 2025.

Source: 2014 AFP, Agence France-Presse (AFP)

Poland to buy armed drones amid Ukraine crisis

NATO member Poland said Tuesday it will acquire combat drones as part of a multi-billion-euro revamp of its armed forces amid heightened tensions with Russia over its role in the Ukraine crisis.

"We will use these drones to defend our territory," Deputy Defence Minister Czeslaw Mroczek told AFP.

"My Ukrainian counterpart informed me that one of their main problems was the fact that Russian drones were operating in Ukrainian air space to scope out artillery targets.

"The Ukrainians were helpless in this situation, and so this is our answer," Mroczek said.

Warsaw will begin acquiring reconnaissance drones in 2017 and attack models in 2018-2019, he added, revealing that talks are underway with US manufacturers, among others, for combat unmanned aerial vehicles or UAVs.

Poland has earmarked 33.6 billion euros (\$42 billion) to upgrade its military equipment over a decade, including acquiring a missile shield and anti-aircraft systems, armoured personnel carriers and submarines in addition to the drones.

The escalation of tensions with Russia over its role in the Ukraine crisis has sounded the alarm on NATO's eastern flank in countries that were once under Moscow's thumb.

Tensions have mounted further as NATO intercepted nuclear-capable Russian bombers and other warplanes in European airspace on more than 100 occasions so far this year, three times more than in all of 2013.

Source: 2014 AFP, Agence France-Presse (AFP)

Saudi, France seal \$3 bn weapons deal for Lebanon army

Saudi Arabia and France sealed an agreement Tuesday for Riyadh to finance the delivery of \$3 billion worth of French weapons to the Lebanese army, which has come under mounting jihadist attack.

French Foreign Minister Laurent Fabius hailed the conclusion of the deal, first announced last December, as a major boost to the Lebanese army's ability to tackle "terrorism" at a time when the former French colony is under mounting threat.

The deal comes as the poorly equipped Lebanese army battles jihadists, including militants of the Islamic State group, both along its porous border with Syria and in its second city Tripoli.

The deal was signed in Riyadh by Saudi Finance Minister Ibrahim al-Assaf and Edouard Guillaud, the head of the ODAS organisation set up by France for the export of defence equipment, a diplomat told AFP.

Lebanese army chief General Jean Kahwaji was also present at the ceremony, the diplomat said, without giving details on the list of weapons to be supplied -- a clause that had stalled the agreement for months.

A French source told AFP that the contract would now "be rapidly implemented."

The French foreign minister said: "This agreement, financed through Saudi aid, will contribute to strengthening the Lebanese army, guarantor of Lebanon's unity and stability.

"It will help it to carry out its mission to defend national territory and fight terrorism, at a time when Lebanon is under threat."

Lebanon's main northern city of Tripoli was rocked by three days of devastating fighting between troops and suspected Al-Qaeda loyalists late last month that left at least 11 soldiers and five civilians dead.

In August, troops fought deadly clashes with jihadists of the Islamic State group and Al-Qaeda affiliate Al-Nusra Front in the town of Aرسال close to the Syrian border.

The jihadists withdrew across the border after a truce deal, but took with them several dozen captive Lebanese soldiers and police, three of whom they have since executed.

Last December, OPEC kingpin Saudi Arabia agreed to finance a \$3 billion package of French military equipment and arms for the Lebanese army.

And in mid-June, at a conference in Rome, the international community pledged its backing for the Lebanese military.

But in September, Lebanese Foreign Minister Gebran Bassil said his country was still waiting "impatiently" for the delivery of the French-made weapons.

In August, Saudi Arabia pledged a further \$1 billion to strengthen the Lebanese army and last month Washington announced it had delivered a new shipment of Hellfire missiles and would also supply light aircraft.

Announcing the supplies, US ambassador David Hale said the aircraft would be paid for out of the additional Saudi funding.

Source: 2014 AFP, Agence France-Presse (AFP)

US F-35 jet makes 'landmark' aircraft carrier landing

The US military's F-35 fighter jet made its first landing aboard an aircraft carrier on Monday, in what officials called a milestone for the new hi-tech warplane.

The F-35 Joint Strike Fighter is the most expensive weapons program in US history and has been plagued by technical glitches and cost overruns, but the Pentagon touted the landing at sea a crucial step forward.

The test flight had the Joint Strike Fighter successfully touching down on the USS Nimitz off the coast of San Diego, with the pilot guiding the plane so its tailhook snagged on the ship's arresting wires, the US Navy said in a statement.

There are three variants of the plane, a standard model, a second one designed for short-landing and vertical take-off and the third -- the F-35C -- outfitted to operate from aircraft carriers.

"Today is a landmark event in the development of the F-35C," said test pilot Commander Tony Wilson.

The landing is part of flight testing at sea that will last for about two weeks, and will help pave the way to deploy the aircraft in the naval fleet by 2018, officials said.

"We plan on learning a lot during this developmental test and will use that knowledge to make the naval variant of the F-35 an even more effective weapons platform," Lieutenant General Chris Bogdan, head of the F-35 program, said in a statement.

The Pentagon plans to spend \$391.2 billion on a total of 2,443 F-35 aircraft, which are manufactured by defense giant Lockheed Martin.

The plane is supposed to form the backbone of the military's future fighter fleet, ensuring the US military's dominance in the skies for years to come with radar-evading technology.

But the program has faced a litany of problems, and the latest setback came in June when a mysterious engine fire led commanders to ground the fleet briefly until the problem could be resolved.

As a result, officials had to cancel plans to send the F-35 to fly at Britain's prestigious Farnborough air show in July because of safety precautions.

Repairs are under way in the test fleet that will ensure the plane's engines are sound, according to Pentagon officials.

Source: 2014 AFP, Agence France-Presse (AFP)

US factory orders fall for second month

US manufacturing orders fell for a second straight month in September as aircraft orders continued to slip, the Commerce Department reported Tuesday.

New orders for manufactured goods dropped \$2.8 billion, or 0.6 percent, to \$499.4 billion. That followed a 10 percent downturn in August, with a fall in orders for Boeing aircraft, normally volatile month to month, mainly explaining the drop.

But manufactured goods shipments showed some strength, rising 0.1 percent in September to \$503.4 billion.

Significant gains in new orders came in iron and steel mill output, likely driven by auto orders, and in power generation equipment.

But analysts said that the overall dull data, along with disappointing US trade numbers for September released earlier Tuesday, was likely to lead to the government lowering its third-quarter growth estimate.

The initial estimate last week put the pace of expansion during the July-September period at a surprisingly strong 3.5 percent annual pace.

Analysts at Barclays Bank on Tuesday lowered their tracking estimate for the quarter to 3.0 percent annual growth based on the new data.

Source: 2014 AFP, Agence France-Presse (AFP)