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Part I: Spain

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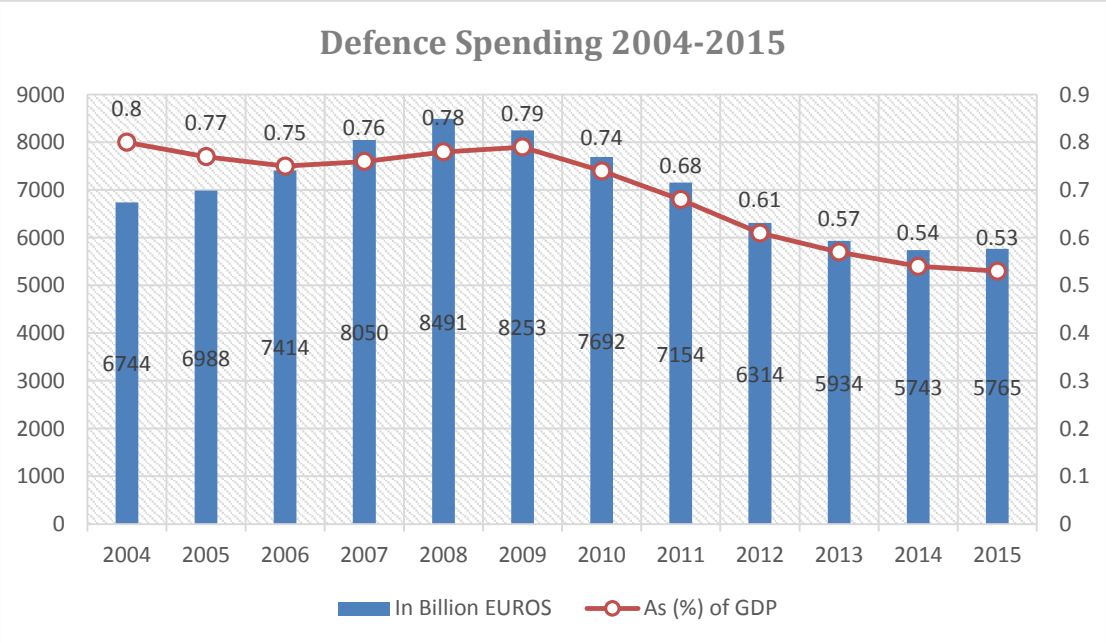
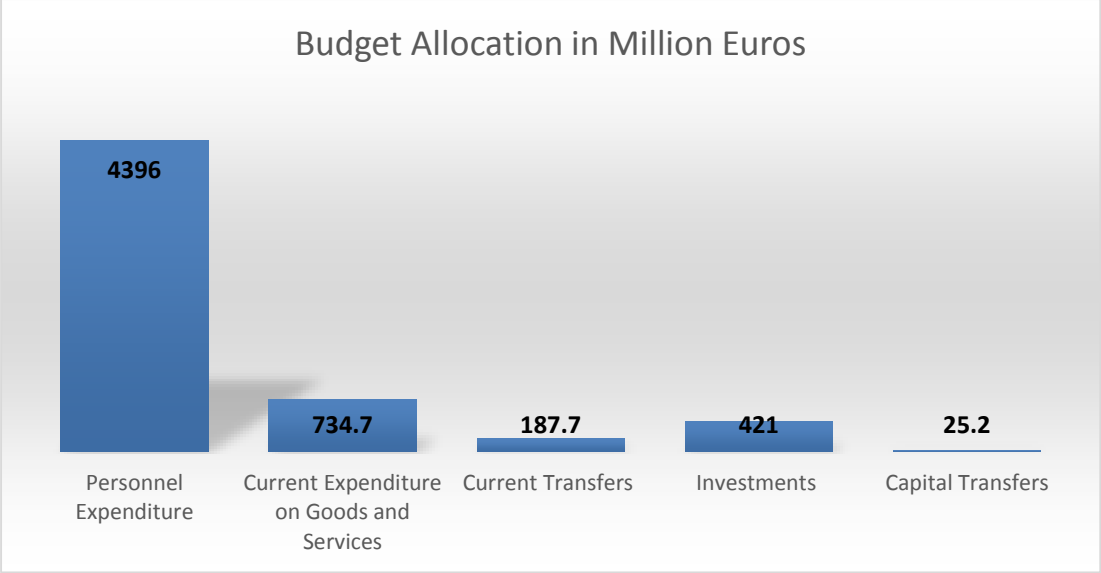
Spain: Allocation of Defence Budget

One of the worst global economic crises in more than 80 years, affected Spain and the rest of Europe, limiting the available funds that national authorities can allocate on defence. It is indicative, that in 2013, the Spanish defence budget was further decreased by 6% compared to 2012, from EUR 6.3 billion to EUR 5.9 billion. This trend continued during 2014 and 2015, when Spain allocated 5.742 and 5.765 billion Euros respectively. Moreover, in 2015 the budget allocated on investments (procurement of new equipment, etc.) reached EUR 421 million, significantly decreased compared to 2008, when it was EUR 2.464 billion.

Taking these decreases into consideration, Spanish authorities have to ensure that the armed forces of the country have the proper equipment for succeeding in their mission, which is to ensure the security of the country, its inhabitants and its citizens. The local defence industry assists towards this direction, as it supplies the armed forces with reliable equipment.



As was already indicated, Spain allocated EUR 5.765 billion on defence in 2015. The breakdown of this amount according to data provided by the Ministry of Defence, was as follows: personnel expenditure EUR 4.396 billion, current expenditure on goods and services EUR 734.7 million, current transfers EUR 187.7 million, investments (procurement of new equipment, etc.) EUR 421 million, and capital transfers EUR 25.2 million. Personnel expenditure (encompassing essential items for the operability of the Armed Forces, such as those necessary for their preparation, training, etc.), captures the biggest percentage of the total defence budget (approximately 76%).



On the other hand, investments (procurement of new equipment, etc.) captured only 7% of total budget. Furthermore, it is worth mentioning that this 'cost chapter' was slightly decreased compared to 2013, when it reached EUR 484.68 million.

Kyriazis Vasileios,

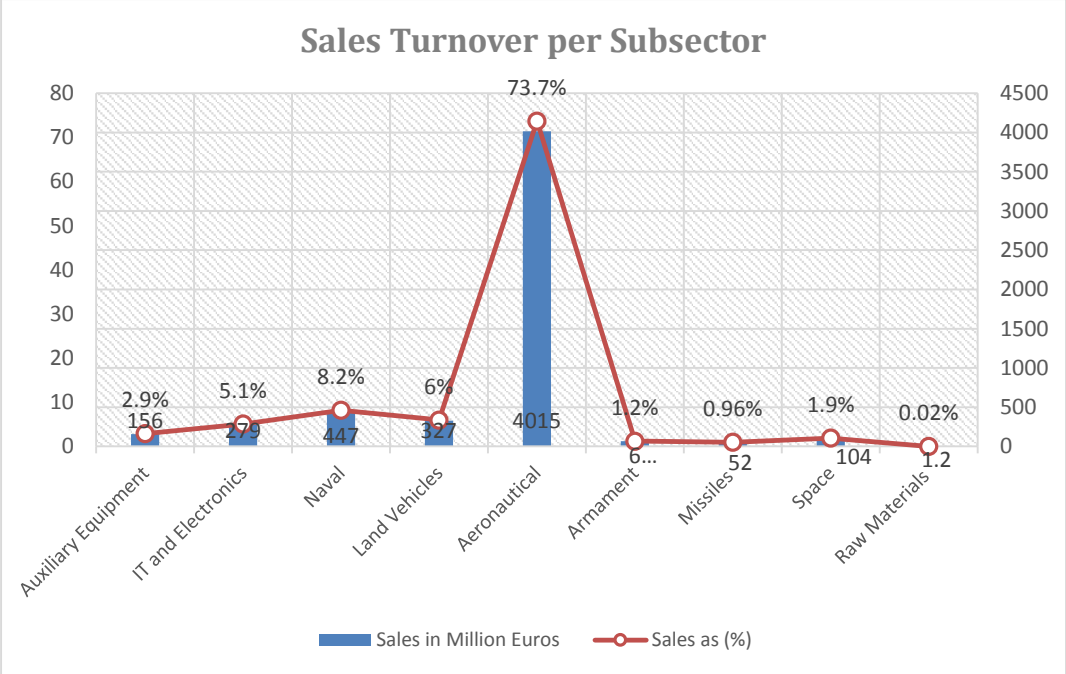
Epicos Newsletter Head Editor

Spanish Defence Industry: Main Competencies, Turnover and Exports

Spanish companies have managed to establish themselves on the international arms market. This is clearly illustrated by the fact that in 2014 almost 85% of the respective companies' revenues, came from exports. Integrated land, sea and air surveillance systems, cyber-security technologies, satellite and radar communication systems, naval vessels and platforms are some of the technologies/solutions that the Spanish defence industry offers. In 2014, there were 568 companies registered as "defence companies" under the Dirección General de Armamento y Material directory, providing some 22.000 direct jobs. Moreover, there were 619 companies that recorded sales in the defence sector and 403 that could potentially provide services and/or products to this sector. The subsectors in which these companies are active, are the following:

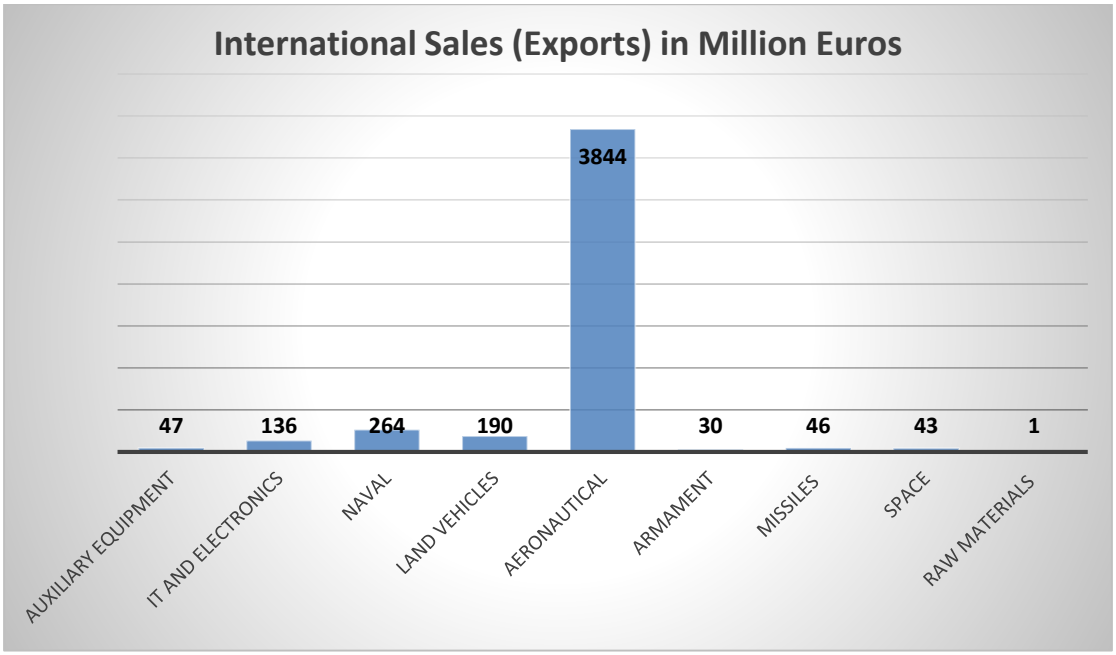
Subsectors	Companies with Sales in the Defence Sector	Companies that Could Potentially Provide Services/ Products to the Defence Sector
Auxiliary Equipment	178	183
IT and Electronics	106	84
Naval	97	36
Land Vehicles	82	37
Aeronautical	80	26
Armament	38	14
Missiles	17	7
Space	15	7
Raw Materials	6	9

According to the Dirección General de Armamento y Material, in 2014, the Aeronautical subsector recorded a sales turnover of 4,01 Billion Euros, accounting for 73.7% of the total sales turnover of the industry. The naval sector followed with 447 Million Euros (8.2%) and the land vehicles with 327 Million Euros (6%).



Spanish arms exports are rather diversified in their geographical structure. Several countries imported defence equipment from Spain, of which more specifically, the nine (9) top recipients of Spanish exports, were: the UK (approximately 824 million Euros), Germany (approximately 576 million Euros), UAE (approximately 327 million Euros), USA (approximately 259 million Euros), Australia (approximately 187 million Euros), Mexico (approximately 180 million Euros), Italy (approximately 124 million Euros), Ecuador (approximately 119 million Euros), Bahrain (approximately 104 million Euros). This actually denotes that Spain exports to four (4) different continents: Europe (Italy, Germany and UK) Oceania (Australia), Latin and Central America (Ecuador and Mexico), North America (USA) and Asia (UAE and Bahrain).

The diversification of the geographical allocation of Spanish exports, is inconsistent with the relatively narrow spectrum of exported items. Spanish defence exports mainly consist in ships and aircraft (accounting for approximately 90% of total exports value).



The Spanish naval sector is primarily dominated by Navantia, a government-owned company, which among others exports frigates, offshore patrol vehicles (OPV) and amphibious ships. Since the 70's, Navantia's competitiveness has earned the interest of several Navies around the globe. Currently the company has signed contracts with a broad number of countries, including Australia, Norway, Malaysia, Venezuela, India, Chile, Morocco and Thailand.

Further, on 7th of May, during IDEF 2015, the Turkish shipyard SEDEF, signed a contract with the Turkish Undersecretariat for Defence industries (SSM), for the design and construction of one LPD (Landing Platform Dock) ship for the Turkish Navy. Navantia participates in this contract as a technological partner. Navantia will provide the design, transfer of technology, equipment and technical assistance to SEDEF for local construction.

Another international success achieved by Navantia on 27th April 2015, was that the Spanish company delivered the twelfth and last LLC fast landing craft, built for the Royal Australian Navy. The design of these ships is based on the fast landing crafts, also built by Navantia, for the Spanish Navy, between 2006 and 2008. The contract for the construction of 12 LLC for

Royal Australian Navy, was signed in September of 2011. The landing crafts are destined to operate with the ALHD “Canberra” and ALHD “Adelaide”, strategic projection ships, similar to the LHD ”Juan Carlos I”, also built by Navantia, in cooperation with BAE Systems.

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

Uninterrupted secure communication, utilizing various existing wireless technologies for Military and Homeland Security applications

An independent, private, non-profit institution, with extensive expertise in modern communications networks and services, is proposing the development of a system that will take advantage of the availability and widespread use of multiple wireless networks, in order to provide uninterrupted, wireless, secure and broadband communications for military, as well as homeland security applications.

For Further Information Contact our ICO Department
Mail at: a-kintis@epicos.com

Rigid tubes and hoses manufacturing for A&D applications

A company specialised in the production and commerce of hoses, control cables and rigid tubes for aircraft is willing to act as a lower tier subcontractor in the development and manufacturing of rigid tubes and hoses for A&D applications worldwide.

For Further Information Contact our ICO Department

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News from our A&D Business Network

BAE Systems awarded GBP 210m to further Successor Submarine design

The Ministry of Defence (MoD) has awarded BAE Systems £201m to further the design of a successor to the Royal Navy's Vanguard class submarines. The funding will allow the business to mature the design of the new class of submarines, which will carry the UK's independent nuclear deterrent, including the layout of equipment and systems, and to develop manufacturing processes. Tony Johns, the Managing Director of BAE Systems Submarines, said: "We are incredibly proud of the role we play in designing and building our nation's submarines. The Successor programme is one of the most challenging engineering projects in the world today and this additional funding will enable us to further mature the design."

BAE Systems is the industrial lead on the programme with more than 1,600 employees working on it, alongside colleagues from the MoD, Rolls Royce and Babcock, many of whom are based at the Company's site in Barrow-in-Furness, Cumbria.

Today's announcement follows three previous funding packages awarded to BAE Systems - two awards of £328m and £315m to commence initial design in 2012, followed by £257m in 2015 for the detailed design.

Approximately 7,700 people are employed by BAE Systems Submarines with the majority at its site in Barrow, where submarines have been built for the Royal Navy for more than a century. The Company is also building the Astute class - seven state-of-the-art nuclear-powered attack submarines.

Subject to the Government's approval to progress to the construction phase, it is estimated BAE Systems will employ between 5,000 and 6,000 people on the Successor programme at its peak, with a total of 9,000 employed across BAE Systems' submarines business. The Company spends approximately £300m annually across its submarine supply chain and this number is expected to increase throughout the life of the Successor programme.

In readiness for the start of construction of Successor, more than £300m is being invested into BAE Systems' Barrow site to transform its submarine building capabilities. This will include brand new, state-of-the-art facilities as well as the refurbishment of existing buildings.

For Further Information Click Here

Rheinmetall wins major order from Latin American customer for logistic vehicles

A Latin American customer placed a major order with Rheinmetall today for logistic vehicles. Worth over €53 million, the contract encompasses an initial lot of 338 logistic vehicles for the army and navy. The order also includes support services. From March 2016 to May 2017, Rheinmetall MAN Military Vehicles will supply the customer's army with 92 TGS-MIL and 216 TGM MIL vehicles. In addition to these, a further 30 TGS-MIL will go the navy. Moreover, the contract features an option for 337 more vehicles.

The TGM and TGS model series are based on the globally proven MAN Trucknology generation. At the cutting edge of commercial truck technology, they set the international standard for robust design and innovative engineering. Originating in large-scale production runs, they have already put in millions of development kilometres. Vehicles destined for the world's armed forces and security services are hardened to stand up to even the most extreme conditions. TGM and TGS both offer an excellent price-performance ratio and are superbly well suited for civil use and military operations alike.

The versatile TGM-MIL and TGS-MIL vehicles can operate in all climatic zones at temperatures ranging from -32°C to +49°C. As NATO mobility class 'C' logistic vehicles, they combine excellent off-road performance. Tried and tested, their engines can run not only on diesel but also a variety of other battlefield fuels, such as aviation turbine fuel (F-34).

Their heavy carrying capacity enables a wide array of different build-ons. Most of these are commercial off the shelf systems, and thus safe and easy to operate. Possible configurations include hook-lift/interchangeable pallet carriers, cargo vehicles, dump trucks, mobile cranes, fire-fighting vehicles, tankers for fuel or water, troop carriers maintenance vehicles and recovery systems. All of these configurations have proven highly effective in all climatic zones. The current order consists of vehicles configured as troop carrier/cargo trucks as well as water and fuel tankers and mobile repair shops. They are therefore extremely well equipped to serve in a disaster relief role in response to the El Niño phenomenon, meeting the full range of requirements for dual use vehicles.

Last but not least, TGM and TGS vehicles are economical to operate. Today the armed forces of over fifty nations armed forces place their trust in these trucks, more than 80,000 of which are in service worldwide.

For Further Information Click Here

Epicos NewsRoom

Civil aviation takes first step towards capping carbon emissions

Experts have agreed on proposals for the first binding limits on carbon emissions for the aviation industry, a move welcomed Tuesday by UN chief Ban Ki-moon as a boost to the battle against climate change.

Under negotiation for the past six years, the measures would apply to new aircraft models from 2020, the UN's International Civil Aviation Organization (ICAO) said in a statement.

Some 170 experts from the UN agency's aviation environment protection committee on Monday recommended the global standard, which is now expected to be approved by the 36-nation ICAO in September.

The recommendation foresees that "the new CO2 emissions standard would not only be applicable to new aircraft type designs as of 2020, but also to new deliveries of current in-production aircraft types from 2023.

"A cut-off date of 2028 for production of aircraft that do not comply with the standard was also recommended," the statement said.

The new norm for carbon emissions will depend on the aircraft's weight.

Ban said the proposals announced by the ICAO on Tuesday "build on the strong momentum" of the Paris climate change agreement agreed in December.

The recommendation had been highly anticipated as aircraft carbon emissions were not part of a landmark pact on fighting perilous climate change hammered out in Paris.

The agreed ICAO restrictions "represent the latest in a series of successful multilateral efforts to reduce the risks of dangerous climate change," Ban said. Carbon emissions from aviation are growing rapidly, with the number of flights worldwide expected to double in the next 15 years.

"The goal of this process is ultimately to ensure that when the next generation of aircraft types enter service, there will be guaranteed reductions in international CO2 emissions," ICAO governing council president, Olumuyiwa Benard Aliu, said.

EU Transport Commissioner Violeta Bulc welcomed the agreement as "an important step to curb aviation emissions". "I hope this will create further momentum for the creation of a global market-based measure to offset CO2 emissions from international aviation, which we hope to achieve this autumn at the ICAO General Assembly," Bulc said in a statement.

Source: 2016 AFP, Agence France-Presse (AFP)

Airbus Helicopters selects Thales and Helisim for its H160 full flight simulator deployment

Airbus Helicopters has partnered with Thales and Helisim to develop and deploy the full flight simulator (FFS) for the H160. In line with the "born ready" strategy implemented by the H160. since the beginning of its development, the FFS will be available to support the H160's entry into service.

This partnership between experienced and recognized companies will offer to future H160 operators a complete range of training services based on a level D FFS using Airbus Helicopters' Simulation Package "Expertise".

"This partnership is an essential milestone in the H160 program and key to meeting the needs of our customers in order to prepare the smooth introduction of H160 into their operations" explained Bernard Fujarski, head of the H160 Program at Airbus Helicopters, "The first FFS will be installed at the Helisim simulation centre in Marignane, France and additional simulators will be deployed worldwide in line with market needs" he added.
Helisim has been the world's foremost simulation centre for Airbus Helicopters platforms for more than 15 years.

The new generation 5.5 to 6-tonne twin-engine H160 helicopter will be tailored for a wide range of applications, including oil & gas operations, emergency medical services, public service, and private and business aviation.

To accompany the innovative H160 design, the FFS will be based on the Thales Reality H series, the most advanced helicopter training simulator on the market. Reality H is perfectly suited to respond to the training needs of the H160, as it produces the most vivid synthetic environments of any civilian based training scenarios and is fast becoming a mainstay for all type of mission-readiness within training centres around the world.

About Thales

Thales is a global technology leader for the Aerospace, Transport, Defence and Security markets. With 61,000 employees in 56 countries, Thales reported sales of €13 billion in 2014. With over 20,000 engineers and researchers, Thales has a unique capability to design and deploy equipment, systems and services to meet the most complex security requirements. Its unique international footprint allows it to work closely with its customers all over the world.

About Helisim

Helisim is a Joint Venture between Airbus Helicopters, Thales and DCI providing high-end simulation services for pilots. Helisim is the world's foremost simulation centre for Airbus Helicopters platforms, operating 24/7 with over 135000 cumulated flight hours, since its creation in 2000, and over 3000 pilots trained every year.

About Airbus Helicopters

Airbus Helicopters is a division of Airbus Group. The company provides the most efficient civil and military helicopter solutions to its customers who serve, protect, save lives and safely carry passengers in highly demanding environments. Flying more than 3 million flight hours per year, the company's in-service fleet includes some 12,000 helicopters operated by more than 3,000 customers in 152 countries. Airbus Helicopters employs more than 23,000 people worldwide and in 2014 generated revenues of 6.5 billion Euros. In line with the company's new identity, fully integrated into Airbus Group, Airbus Helicopters has renamed its product range replacing the former "EC" designation with an "H".

For Further Information Click Here

Source: Epicos, Airbus Helicopters

flydubai says profits nosedived 60% in 2015

Dubai's no-frills carrier flydubai said Wednesday its 2015 net profit stood at 100.7 million dirhams ($27.4 million), down 59.7 percent from the previous year, due to the strong dollar and route suspensions.

Total revenues increased 11 percent to 9.4 billion dirhams ($1.33 billion), with passenger numbers surging 25 percent to 9.04 million, it said in a statement.

But profits have come "under pressure attributable to a strong dollar (and) the challenging trading environment across the network," the government-owned company said.

Profit was also affected by "disruption resulting from the suspension of flights on some established routes and a large number of recently launched routes with a lead time required to reach maturity," flydubai said.

Among routes suspended due to unrest were flydubai's flights to destinations in war-torn Iraq and Yemen.

The carrier serves 90 destinations with a fleet of 50 Boeing 737 planes.

Source: 2016 AFP, Agence France-Presse (AFP)

Airbus starts A350-1000 final assembly

Airbus has started final assembly of the first A350-1000 on schedule at the A350 XWB Final Assembly Line (FAL) in Toulouse, France. This A350-1000, one of three flight test aircraft to be built, will take to the skies for its maiden flight before the end of 2016. A350-1000 deliveries will start in mid-2017.

To ensure the smooth integration of the A350-1000 into the FAL while A350-900 production is ramping-up, Airbus has added three additional final assembly stations. For maximum flexibility, all stations in the A350 XWB FAL can be used for both models.

Currently in "Station 50" for fuselage join-up and nose landing gear installation, the first A350-1000 will next move to "Station 40" where the wings, main landing gear, pylons and tail planes will be installed. To save time and optimise the A350 assembly process, Airbus starts the cabin furnishing and first electrical power-on in parallel to the structural assembly work. After this stage is completed, the aircraft continues through the FAL process, with final structural activities, ground tests, painting, cabin & cockpit completion and engines installation before being transferred to the flight test centre.

While having a very high degree of commonality with the A350-900, the A350-1000, measuring nearly 74 meters from nose to tail, is the longest fuselage version of Airbus' all-new family of wide body jetliners. The A350-1000 will be powered by Rolls Royce Trent XWB-97 engines, the most powerful engine developed for an Airbus aircraft. The A350-1000 comfortably seats 366 passengers in a typical 3-class configuration and flies on routes of up to almost 8,000 nautical miles which represents a significant revenue-generating advantage for operators. So far, Airbus has won 181 A350-1000 orders from 10 customers.

For Further Information Click Here

Source: Epicos, General Dynamics

General Dynamics Receives $24 Million U.S. Navy Award for Ohio Replacement Submarine Development

The U.S Navy has awarded General Dynamics Electric Boat a $23.6 million contract modification to continue development of the U.S. Navy's Ohio Replacement submarine. Electric Boat is a wholly owned subsidiary of General Dynamics (NYSE: GD).

Under the terms of the modification, Electric Boat will perform air conditioning unit detail design, prototype unit manufacture and technical manual development.

Initially awarded in December 2012, the five-year $1.85 billion contract calls for Electric Boat to perform research and development work for the Navy's next-generation ballistic-missile submarine, which is scheduled to begin construction in 2021. The potential value of the overall contract is $2.5 billion.

More information about Electric Boat is available at www.gdeb.com. More information about General Dynamics is available at www.generaldynamics.com.

Source: Epicos, General Dynamics

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