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Turkish Defence Industry: Development through Innovation



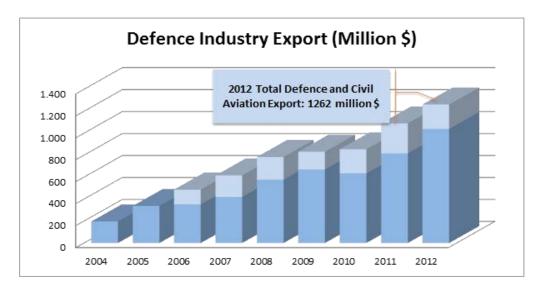


Turkey has made significant steps in building the proper conditions for creating a viable defence industry that helps the country reducing external dependence in critical subsystems, in line with the requirements/needs of the armed forces. It is indicative that according to

estimations made by the Turkish Defence Industry Manufacturers Association, Turkish manufacturers provide about half of the requirements of the Turkish Armed Forces. Under this context, the Turkish national aerospace company Tusas Turkish Aerospace Industries (TAI) has completed predesign work for the country's first indigenous utility helicopter. According to official sources the helicopter is expected to be part of the Turkish inventory by 2023.

Turkey has methodically used defence offsets in order to create an indigenous industry. The new helicopter under development by TAI is greatly beneficiated by this as Turkey is planning to extensively use the technological know-how obtained from a Sikorsky-led program, which included the co-producing of 109 utility helicopters for the Turkish military.

A factor showcasing the progress of the national defence industry is that exports increased even during 2008-2009 despite the global economic crisis, reaching \$669 million dollars in 2009.



Additionally, it is worth mentioning that Turkish defence companies spend a rather high proportion of their annual turnover on R&D.

Turkish defence industry is mostly active in the following technological fields:

- 1. Land Platforms
- 2. Naval Platforms
- 3. Aerospace

- Weapons / Ammunition Rockets / Missiles
- 5. Electronics and Electro-Optics

- 6. Software and Information Technologies
- 7. Electrical Systems
- 8. Research, Development and Engineering
- 9. Materials Parts, Components and Moulds

- 10. Uniforms and Accessories
- 11. Others (utilities, medical, training ...)
- 12. Related Organisations

Kyriazis Vasileios,

Epicos Newsletter Head Editor

Turkish Defence Procurements





According to media sources the 2014 Turkish defence budget will be increased by 6.71%. In general Turkey allocates a significant amount of funds for defence. With these, the country procures defence equipment from several countries. USA has a leading role in the Turkish armament imports. Apart from the North American country, other important countries that export arms to Turkey, in the last five years, were South Korea, Israel, Germany and Spain. Thus we can positively say that Turkish armament imports are

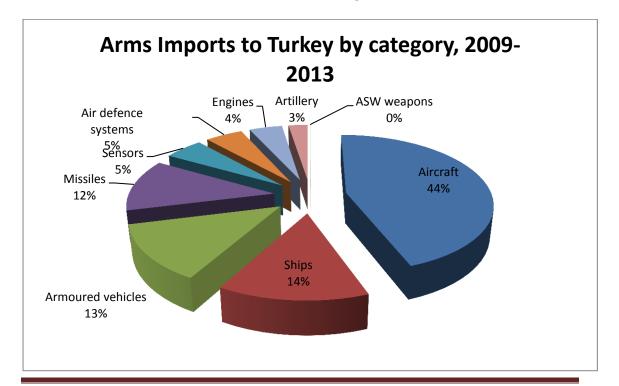
rather open in their geographical preference.

Imports (expressed in US\$ m. at constant 1990 prices)

	2009	2010	2011	2012	2013	Total
United States	9	31	243	964	316	1562
South Korea (ROK)	173	181	206	198	53	810
Israel	320	69	22	9	3	422
Germany (FRG)	172	126	40	28	32	398
Spain				111	107	218

Source: SIPRI Publications, Arms Transfers Database

Aircraft were the predominant area of imports for the period 2009-2013 covering the 44% of the total imports conducted. The 2nd most important sector was that of ships whereas other areas such as armored vehicles, missiles sensors and engines follow.



Among the procurements Turkey conducted during the last decade was that of 293 Navigatos APCs. Deliveries were concluded in 2013. Additionally, the country procured 6 ATR-72MP ASW aircraft. Assembly will be made in Turkey, whereas deliveries are expected to conclude in 2017. Finally, Turkey purchased 4 Comandante OPVs for the coast guard from Italy, for a total cost of EUR353 m.

Kyriazis Vasileios,

Epicos Newsletter Head Editor

Epicos "Industrial Cooperation and Offset Projects"

epicos.com 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

Development of a customized Howitzer crew training and simulation system



A leading player in artillery simulation and training concepts is interested in expanding its Howitzer crew training and simulation system into new markets. The complete training system is a proven concept, which uses a complete turret with all equipment, dummy ammunition and monitoring systems for the instructors to make sure that artillery training can be performed as realistic as possible. The system simulates the whole firing process and is considered to be much more cost effective than training in the real environment. Having delivered more than 50 systems to 10 international customers

worldwide, the company has established the market leadership in this field. The company is interested in expanding this leadership and extend its customer base to new countries. In this context, the company is willing to cooperate with a prime contractor to develop a customised Howitzer training system, which can be offered to a third country as part of a direct or indirect offset programme.

For Further Information Contact our ICO Department

Mail at: g-menexis@epicos.com

Ruggedized TFT displays capability development for vetronics applications



A company is proposing the collaboration with a Prime Contractor or a third company for the development of fullyruggedized TFT displays line in order to be utilized in vetronic systems development and installation.

For Further Information Contact our ICO Department

Mail at: g-menexis@epicos.com

News from our A&D Business Network



OGMA delivered the center fuselage for the EMBRAER KC390



OGMA - Indústria Aeronáutica de Portugal, handed over a center fuselage intended for new military transport aircraft from Embraer, the KC390. With the dimension of 10.5 meters this is one of several elements of this new aircraft that are being manufactured by OGMA. Beyond the

central fuselage, OGMA is also responsible for the manufacturing and assembly of the left and right sponsons, with about 12 meters in size making up the fairing landing gear compartment.

These pieces are made of composite material and metal alloys.

In our facilities, the elevators for this military tactical aircraft transport are also manufactured.

The involvement of OGMA in this project, reflects the confidence in the Portuguese aerospace industry.

In addition to the production teams, are directly involved in manufacturing activities of this project, about 50 highly qualified technicians with skills involving the engineering, planning, quality, purchasing and logistics.

For Further information visit: http://www.ogma.pt/index.php?page=news en&id=1008

Successful Field Demonstration of INTRACOM Defense Electronics' WiSPR System by the US Marine Corps



INTRACOM Defense Electronics (IDE) performed a field demonstration of its intercommunication system WiSPR (Wideband Intercom & Secure Packet Radio) to the United States Marine Corps (USMC) in the USA. The

demo was hosted by PEO Land Systems Marine Corps and took place in the Transportation & Demonstration Support Area (TDSA) at Marine Corps Base Quantico, Va. The attendees had

the opportunity to experience the functionality of WiSPR system under real operating conditions, focusing on its superior Dynamic Noise Reduction performance.

WiSPR is state-of-the-art software controlled digital intercommunication system that has been developed and manufactured by IDE in Greece. It provides high quality voice communications, IP networking, as well as the capability of embedded wireless networking of voice, data and video, via the Secure Wireless Local Area Network WiSPR-WLAN. These, among other important features, provide WiSPR with significant competing advantages for a variety of military vehicles and networking applications. WiSPR is installed in numerous types of vehicles and is currently operational in many countries around the world.

About INTRACOM Defense Electronics

INTRACOM Defense Electronics (IDE), Greece's largest defense electronics systems provider, is a subsidiary of Intracom Holdings, one of the largest multinational technology groups in Greece. IDE possesses unique know-how in design, development and manufacturing of products that incorporate state-of-the-art technology in tactical military communication systems, encryption devices, command, control and communication systems (C³I), surveillance, reconnaissance and security systems, hybrid electric power and electric energy storage systems, missile electronic components, software for military applications and testing equipment.

IDE participates in international development and production programs, as well as in international cooperations for the production and export of defense equipment and is a registered member on NATO's vendors list. The Company's products and services are deployed in Cyprus, England, France, Germany, Luxemburg (NSPA), Libya, Sweden and the USA.

For more information please visit: www.intracomdefense.com

Epicos Newsroom



IATA says aviation safety remains high

Safety in global aviation remains high, the International Air Transport Association said Tuesday, as it seeks to improve in-flight tracking after the disappearance of a Malaysian passenger jet in March.

There were 0.34 accidents per million flights in the first four months of 2014 compared with 0.32 over the preceding five years, IATA said at its annual general meeting in Doha, Qatar.

"The preliminary rate for the industry as a whole (including non-IATA airlines) is performing strongly," with 0.29 accidents per million flights in January-April against 0.48 in the previous five years, it said.

IATA groups 242 airlines representing 84 percent of global air traffic.

Its statement noted that the industry recorded three accidents between January and April, including the mysterious disappearance of Malaysia Airlines Flight MH370.

"Aviation stakeholders are united in their desire to ensure that we never face another situation where an aircraft simply disappears," said Kevin Hiatt, senior vice president at IATA's Safety and Flight Operations department.

MH370 disappeared on March 8 en route from Kuala Lumpur to Beijing with 239 people aboard. An extensive search in the Indian Ocean has been unable to locate the plane.

An IATA taskforce on in-flight tracking, formed by the UN's aviation agency, the International Civil Aviation Organisation (ICAO), is to present its findings in September.

"While states work through ICAO to develop and implement performance-based global standards, the industry is committed to moving forward with recommendations that airlines can implement now," said Hiatt.

He acknowledged, however, that airlines alone can decide if they want to implement such standards.

Meanwhile the company specialising in air transport communications and information technology SITA announced in Doha plans to introduce a new aircraft tracking device.

"The solution, which is currently being evaluated by several airlines for testing, will utilise technology that is already installed in the aircraft to provide advanced tracking capabilities," a statement said.

It said the system known as "SITA AIRCOM Server Flight Tracker solution" will alert airline flight dispatchers "to unexpected aircraft movements" it said.

According to its designers, "the solution does not call for extensive additional cost or investment by the airlines" as it relies on a system that is already installed in many aircraft.

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

Breakthrough in Alitalia, Etihad negotiations

Alitalia celebrated a breakthrough in talks with Etihad on Sunday which could see the UAE carrier buy up to 49 percent of the stricken Italian flag carrier.

The proposed deal to save the airline, which would otherwise risk bankruptcy, "is excellent for Alitalia, this investment will ensure financial stability," Alitalia chief Gabriele Del Torchio said, without revealing the details of the latest tie-up proposals.

The go-ahead came in the form of a letter to Alitalia, which Etihad said "specifies the conditions and criteria for the proposed capital investment."

"We are pleased to be able to proceed and trust we'll be able to conclude the deal proposed to Alitalia," Etihad Airways chief James Hogan said in a joint statement from the two companies.

The development follows months of negotiations over stumbling blocks such as the debt restructuring demanded by Etihad in exchange for its investment.

"Today is an important day for Alitalia, I would say a decisive day for our flagship company and for the whole of the Italian airline transport sector," said Transport Minister Maurizio Lupi.

Etihad is reported to be considering investing up to 560 million euros (\$763 million) in a "new company", while the current shareholders would keep their 51-percent share by taking part in a capital increase of 200 million euros.

Italian media said Etihad in return wanted 3,000 redundancies, more than the 2,000 already negotiated by management.

The majority of Alitalia's debt, the cost of redundancies and ongoing legal disputes would go into a holding company controlled by the consortium.

Italy's top business daily II Sole 24 Ore warned that transforming Sunday's proposals into a contract "is a task not without obstacles," adding that the next stage of negotiations could "last up to a month."

Alitalia has been through years of crises and was at one point hoping for a rescue from Air France-KLM.

It was bailed out by the state in 2008 to the tune of 300 million euros when it was taken over by a consortium of private investors.

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

IATA expects airline profits to hit \$18 bn in 2014

The International Air Transport Association said Monday it expects airline companies to record combined net profits of \$18 billion (13 billion euros) this year.

Revenues were forecast to reach \$746 billion, IATA director general Tony Tyler said in Doha, pointing out that net margins stood to average 2.4 percent only.

"It sounds impressive. But the brutal economic reality is on revenues of \$746 billion dollars we will earn an average net margin of just 2.4 percent," he said.

This amounted to less than \$6 per passenger, added Tyler, who was speaking at an IATA-organised annual conference of the airline industry in the Qatari capital.

"The good news is that airline profits are improving. The average return on invested capital today is 5.4 percent -- up from 1.4 percent in 2008," said Tyler.

"But we are still far from earning the 7-8 percent cost of capital that investors would expect," he added.

He said there was still huge potential for development in the sector, saying that easing certain regulations could help.

IATA has long complained of the difficulty of consolidating the sector, as some countries have placed restrictions on investing in European and American companies.

Carriers have managed to partially get around the problem by creating alliances such as Skyteam, Oneworld and Star Alliance, although the industry is still fragmented.

"Our customers expect efficient global connectivity. But the regulatory structure prevents the global consolidation that has happened in other industries," Tyler said.

Qatar Airways CEO Akbar al-Baker, who headed IATA's general assembly this year, also stressed the importance of the sector for development in certain countries.

He urged the newly elected Indian government "to see aviation as a very important tool for economic growth in India".

IATA said in March that some 240 carriers representing 84 percent of global air traffic had revised down their profit forecast for 2014 to \$18.7 billion from \$19.7 billion.

Tyler stressed the need to work on security in the industry, particularly in the wake of the disappearance of Malaysia Airlines Flight MH370.

MH370 disappeared on March 8 en route from Kuala Lumpur to Beijing with 239 people aboard. An extensive search in the Indian Ocean has found no trace of the plane.

"A large commercial airliner going missing without a trace for so long is unprecedented in modern aviation. And it must not happen again," Tyler said.

IATA and "experts from around the world are working together to agree on the best options to improve global tracking capabilities," he added.

Tyler said the industry was celebrating 100 years of aviation this year, and was expecting to carry 3.3 billion passengers and transport 52 million tonnes of cargo this year.

In total, some 50,000 destinations are linked through around 100,000 daily flights, while the industry generates more than 58 million job opportunities worldwide.

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

Obama calls on European allies to boost defence spending

US President Barack Obama told European allies Tuesday they had a responsibility to boost defence spending in return for US protection amid new instability in Europe.

"We have seen a steady decline, that has to change," Obama said, bemoaning cuts in military spending across Europe in an age of economic austerity.

Obama said that with a few exceptions, including Poland, European nations had not been pulling their weight in the alliance -- a fact that was exposed by the East-West showdown over Ukraine.

"They expect full membership when it comes to their defence, that means they have also got to make a contribution that is commensurate with full membership," Obama said at a press conference in Warsaw.

Obama said the NATO alliance was the "cornerstone" of US security.

"But we can't do it alone," he said.

"We have to make sure everybody who is a full member of NATO has full membership."

Obama spoke at a press conference with Polish President Bronislaw Komorowski who announced that in recognition of the new security environment following Russia's annexation of Crimea, his government would boost defence spending to 2.0 percent of GDP.

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

Air New Zealand orders 14 Airbus planes for \$1.5 bln: CEO

Air New Zealand said on Sunday that it has ordered 14 medium-range Airbus planes, valued at \$1.5 billion according to list price.

The order by New Zealand's flag carrier includes three A321neo, 10 A320neo and one A320, said the airline's chief Christopher Luxon at a conference in the Qatari capital.

The neo units will be delivered between 2017 and 2019, while the classic A320 will be supplied early next year, he said on the sidelines of the general assembly of the International Air Transport Association.

The single-aisle aircraft are more fuel efficient than earlier models.

Luxon said that the carrier plans to have a fleet of medium-range airliners consisting exclusively of Airbus planes. Airbus's A320 family competes with Boeing's 737.

In November 2009, Air New Zealand placed an order for 14 A320 jets to replace its Boeing 737-300 planes.

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