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Republic of Korea: Defence Industry



The Korean defence industry can be fairly characterised as highly capable in ship-building. Additionally, it has a developing aviation industry which produces both licenced production helicopters and local designed supersonic trainers and it also develops and manufactures

armoured vehicles, including main battle tanks. According to a report prepared by the Korean Institute for Industrial Economics and Trade (KIET), the vast majority of Korean defence companies are 1st Tier companies, whereas only a relatively small amount varying from 5% in 2011 to 4.1% in 2013 were System Integration (S.I.) companies.



Туре	Definition
*System	Large defence company that mainly produces weapon systems registered in
Integration	the Government, Defence Acquisition Program Administration (DAPA)
(S.I.)	
Company	
*Designated	Defence company that mainly produces components
Defence	registered in the Government, Defence Acquisition Program Administration
Company	(DAPA)
*1 st Tier	Small and Medium Enterprises that mainly produce parts,
Company	as a first and second cooperative firms of S.I. companies

Source: The Korean Defence Industry 2014: Current Status and its Policy Implications, Korean Institute for Industrial Economics and Trade

The sales of the Korean defence industry totalled \$10.6 billion in 2013, an 8.2% increase compared to 2012. Defence S.I. companies accounted for 63.1% (\$6.7 bn) of total arms sales, while designated defence companies and 1st tier companies produced a total of \$3.9 bn on sales (36.9%). By weapon system, artillery's sales in 2013 ranked highest with

\$3.2 billion (33%). Military aircraft and military vehicles ranked 2nd and 3rd with \$2.3 billion (20%) and \$2.0 billion (17%) respectively.



Source: The Korean Defence Industry 2014: Current Status and its Policy Implications, Korean Institute for Industrial Economics and Trade

Regarding exports, Korean defence industry, in 2013 recorded a total of \$1.36 billion, increased by 3.5 times compared to the amount of \$0.39 billion recorded in 2008. Additionally, it is worth mentioning that 45 companies exported defence equipment in 2013. Moreover, the arms export ratio as a % of sales reached 12.8%.

Military aircraft were the predominant area of exports in 2013 with a total amount of \$660 US\$ m. (or 44.2% of total exports). The 2nd most important sector was that of artillery equipment with \$413 million (27.6% of total exports), whereas the 3rd most important sector was that of military vehicles, with \$184 million (12.3% of total exports).



Source: The Korean Defence Industry 2014: Current Status and its Policy Implications, Korean Institute for Industrial Economics and Trade

In 2013, the total investment amount of arms manufacturers in Korea was \$548 million, an increase of 28.1% compared to 2012. Moreover, the amount invested in R&D and equipment was \$235 million and \$313 million respectively.

Regarding the total number of employees in the defence sector, there were in total 33,162 personnel in 2013, an increase of 5.6% compared to the previous year. Finally, R&D personnel occupied a high proportion (24.2%) of the Korean defence industry, while the production personnel amounted to 50.5% of the total number of employees, followed by the support personnel with 25.3%.

Kyriazis Vasileios, Epicos Newsletter Head Editor

Republic of Korea: Current & Future Defence Budget



Ministry of National Defense Republic of Korea

Due to the military threat posed by North Korea, the strengthening of military power by neighboring countries in Northeast Asia and

changes in the military environment, Republic of Korea's authorities are deliberately trying to secure an adequate budget amount for national defence. However, the ratio of the defence budget to the ROK's gross domestic product (GDP), is decreasing. As of 2014, the defense budget accounted for 2.38% of Gross Domestic product (GDP) lower than 2.4 that it was in 2013. In 2015 it is expected that defence budget will represent 2.35 of GDP.



The budget allocated to the 2015-2019 Mid-term Defense Program amounts to 222.9 trillion won (310.9 million Dollars), reflecting an increase of 5.6% for force operation, an increase of 10.6% for force improvement, and an increase of 7.2% for the total defense budget on average for the mid-term period.

In order to enhance its capabilities the country is planning to procure during the 2015-2019 period the following: for the land forces, efforts will be made to enhance the ROK military's surveillance, reconnaissance, and command and control capabilities, and improve its maneuver and precision strike capabilities while acquiring the essential forces required to enhance the combat power of field units. Regarding the naval forces it is expected that efforts will be made to strengthen the capabilities for protecting sea lines of communication (SLOC). Additionally amphibious operations will be acquired.

Additionionally, it is worth mentioning that Republic of Korea is changing its personnel structure, making it a cadre-based military while gradually downsizing the troop's number. This process has already started as military personnel decreased by 26,000 between the period 2005 and 2009. The total military personnel were 681,000 in 2005. From these

548,000 served in the army, 41,000 served in the navy, 27,000 in Marine Corps and 65,000 to the air force. In 2009 this number was reduced to 655,000. The 26,000 personnel were reduced from the army while the personnel of the other branches of the armed forces (navy, marine corps and air force) remained the same.



The projection for 2020 is that this number will further diminish to 517,000. Once again the army will mainly absorb this reduction as the total number of personnel will be reduced from 522,000 that it was in 2009 to 387,200 in 2020. The only other branch that will see its personnel cut is the marine corps (27,000 in 2009, 23.800 in 2020).

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...

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Development of a field-deployable, compact weather station system



A manufacturing company with significant experience in designing and developing environmental Meteorological Stations, and sensors for meteorological, hydrological and agro-meteorological applications is willing to expand its capabilities in the field of automated weather stations that can be rapidly deployed and used in diverse field operations.

For Further Information Contact our ICO Department Mail at: g-menexis@epicos.com

Development of composite twin smart container for the transport and storage of new generation missiles



A leading company in the development and manufacturing of composite products for ballistic protection and structural applications, is proposing the development of a smart composite twin container for transport and storage of new generation missiles.

For Further Information Contact our ICO Department

Mail at: g-menexis@epicos.com

News from our A&D Business Network



Textron Systems Awarded Contract to Provide an Additional 55 COMMANDO Select Armored Vehicles to Afghan National Army



Textron Systems Marine & Land Systems, a Textron Inc. (NYSE: TXT) business, announced today a \$56.2 million firm-fixed-price contract from the U.S. Army Contracting Command, Warren, Mich., to supply 55

additional COMMANDO Select four-wheeled armored vehicles to the Afghan National Army (ANA). The vehicles are being contracted through the U.S. Army Foreign Military Sales (FMS) process. Work will be performed in Slidell, La., with vehicle deliveries beginning in October 2015 and completing by February 2016.

This latest FMS order of COMMANDO Select vehicles for the ANA will be configured in three variants: 36 equipped with Objective Gunner Protection Kits; 15 with enclosed 40mm/.50 caliber turrets; and four ambulance vehicles.

Called Mobile Strike Force Vehicles (MSFV) by the ANA, these vehicles will be deployed in support of security operations throughout the country. More than 630 of these vehicles have been delivered to the ANA since 2012.

"Since being put into service by Afghan National Army Kandaks (battalions) several years ago, ANA soldiers have experienced the exceptional mobility, survivability and overall performance these vehicles are known for," said Tom Walmsley, Marine & Land Systems senior vice president and general manager. "This additional supply of vehicles will support Kandaks currently operating MSFVs, so that existing ANA vehicle inventory can be rotated in for regular service and maintenance work."

Rigorously tested and proven in the toughest environments, the COMMANDO family of vehicles – including Elite, Select and Advanced lines – offers a range of protection options, unmatched on-road/off-road mobility and ample firepower. As an end-to-end solutions provider, Textron Systems also offers customers vehicle fielding, training, maintenance and logistics support services throughout each vehicle's life cycle.

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About Textron Systems

Textron Systems' businesses develop and integrate products, services and support for aerospace and defense customers, as well as civil and commercial customers including those in law enforcement, security, border patrol and critical infrastructure protection around the globe. Harnessing agility and a broad base of expertise, Textron Systems' innovative businesses design, manufacture, field and support comprehensive solutions that expand customer capabilities and deliver value. Textron Systems consists of its Advanced Information Solutions, Electronic Systems, Geospatial Solutions, Lycoming Engines, Marine & Land Systems, Support Solutions, TRU Simulation + Training, Unmanned Systems and Weapon & Sensor Systems businesses. More information is available at <u>www.textronsystems.com</u>.

About Textron Inc

Textron Inc. is a multi-industry company that leverages its global network of aircraft, defense, industrial and finance businesses to provide customers with innovative solutions and services. Textron is known around the world for its powerful brands such as Bell Helicopter, Cessna, Beechcraft, Hawker, Jacobsen, Kautex, Lycoming, E-Z-GO, Greenlee, Textron Systems, and TRU Simulation + Training. For more information visit: www.textron.com.

US Special Operations Command Awards Harris Corporation \$390 Million IDIQ Contract for New Two-Channel Handheld Tactical Radio



Harris Corporation has been awarded a single-source IDIQ contract with a ceiling value of \$390 million to supply a new specialized handheld tactical radio to U.S. Special Operations Forces (SOF). The IDIQ contract

consists of a five-year base and an additional one-year option. Under the SOF Tactical Communications (STC) program, Harris will provide its new integrated two-channel, handheld radio that combines communications and intelligence, surveillance and reconnaissance (ISR) capabilities to address the SOF's unique mission needs. The Harris STC handheld radio can operate in the harshest environments and meets rigorous requirements for small, lightweight, multiband, multifunction, multi-mission tactical radios. It can be upgraded easily and has built-in backward interoperability to communicate over legacy networks.

The Harris STC handheld radio enables SOF teams to communicate over multiple channels simultaneously with an integrated Selective Availability Anti-Spoofing Module (SAASM) Global Positioning System (GPS) receiver, and the ability to receive ISR full-motion video and signals-based threat information. The STC leverages Harris' extensive experience and innovative technology from its highly successful Falcon III tactical radio family – including the AN/PRC-117G and AN/PRC-158 manpack radios.

"The Harris STC handheld is a highly advanced, multiband radio capable of reaching virtually anyone, anywhere, regardless of waveform or device," said Chris Young, president, Harris Communication Systems. "The STC is the result of our continued investment and commitment to advancing tactical radio communications for our warfighters. It is a purpose-built radio with tremendous power and capability in a very small package."

About Harris Corporation

Harris provides advanced, technology-based solutions that solve government and commercial customers' mission-critical challenges. The company has approximately \$8 billion in annualized revenue and more than 22,000 employees - including 9,000 engineers and scientists — supporting customers in more than 125 countries. Learn more at harris.com.

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Epicos NewsRoom

France to hold crunch talks in India on Rafale deal



French and Indian defence officials are to hold fresh talks Tuesday on the purchase of 36 Rafale jets, with hopes drawn-out negotiations on the multi-billion-dollar deal are close to concluding, an official said.

The talks are going ahead in New Delhi after the French side agreed to an Indian government demand for future investment in the country as part of the deal, the Economic Times said.

A government official told AFP he was confident the talks in New Delhi would "take the deal to the final stage" but declined to comment on any agreement on investment.

"If all goes well, a government-to-government agreement will be signed soon. It will most likely take a month before the final pact is signed," the official said.

During a visit to France in April, Indian Prime Minister Narendra Modi announced that New Delhi had ordered 36 of the "ready to fly" planes, worth an estimated 5 billion euros (\$5.6 billion).

But a sticking point has been Delhi's standard requirement that arms makers invest a percentage of the value of any major deal in India, known as the offset clause.

The Economic Times, quoting unnamed sources, on Tuesday said the French have agreed in principle to a 50 percent offset clause.

Stephane Reb, the French defence ministry's senior military procurement officer, will head the negotiating team, the daily said.

The deal is a long way short of plans in 2012 under the previous Indian government to buy 126 Rafale jets from French manufacturer Dassault Aviation as part of a \$12-billion deal.

After coming to power last May, the Modi government dashed lingering hopes over that deal, saying the country would only buy 36 because they were "way too expensive".

India is in the middle of a major upgrade of its ageing military hardware, a modernisation programme worth about \$100 billion, partly to keep up with rival neighbours Pakistan and China.

Modi also wants to end India's status as the world's number one defence importer and to have 70 percent of hardware manufactured domestically by the turn of the decade.

Source: 2015 AFP, Agence France-Presse (AFP)

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Boeing Receives Order from India for 22 Apache and 15 Chinook Helicopters

The India Ministry of Defence has finalized its order with Boeing for production, training and support of Apache and Chinook helicopters that will greatly enhance India's capabilities across a range of military and humanitarian missions.

India will receive 22 AH-64E Apache attack helicopters and 15 CH-47F Chinook heavy-lift helicopters. Both are the newest models of those aircraft. "This is a milestone in Boeing's expanding commitment to India," said Pratyush Kumar, president, Boeing India. "This acquisition enhances the Indian Air Force's capabilities and offers us an opportunity to further accelerate 'Make in India.' Large sections of the Chinook fuselage are already manufactured in India and discussions are ongoing with our Indian partners to make Apache parts." The Apache is the world's leading multi-role attack helicopter. The AH-64E Apache, the most modern variant also flown by the U. S. Army, features enhanced performance, joint digital operability, improved survivability and cognitive decision aiding.

The CH-47F Chinook is an advanced multi-mission helicopter operated by the U.S. Army and 18 other defense forces. The Chinook has proven its ability to operate in the range of conditions that typify the Indian subcontinent, including delivering heavy payloads to high altitudes. "These new aircraft will provide world-class capabilities to meet the Indian Air Force's missions today, tomorrow and well into the future," said David Koopersmith, vice president and general manager, Boeing Vertical Lift division. "This agreement represents another major step forward in our long and successful relationship with India." India is the 14th nation to select the Apache and the 19th nation to select the Chinook.

"The Apache and Chinook represent the best of high-performing technologies that will modernize India's defense capabilities," said Dennis Swanson, vice president, Defense, Space & Security in India. "We look forward to delivering the newest Apache and Chinook to our customers and remain focused on delivering on its commitments to the Indian Air Force and India's Ministry of Defence."

A unit of The Boeing Company, Defense, Space & Security is one of the world's largest defense, space and security businesses specializing in innovative and capabilities-driven customer solutions, and the world's largest and most versatile manufacturer of military aircraft. Headquartered in St. Louis, Defense, Space & Security is a \$31 billion business with 53,000 employees worldwide. Follow us on Twitter: @BoeingDefense.

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Source: Epicos, Boeing

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Saab Sells Live Training Systems to Austrian Army

Defence and security company Saab has today signed a contract with the Austrian Federal Ministry of Defence to supply a new advanced training system for the Austrian army. The order value is approximately SEK180 million and deliveries are planned from 2015 to 2018. Production will take place in Huskvarna.

"We continue to build on the success of our existing relationship with the Austrian army. For more than 15 years they have been using our system; they are an extremely far-sighted and experienced partner. Saab is delivering training systems to all of the armed forces in Europe and Austria is now able to enhance their multinational training activities," says Henrik Höjer, head of business unit Training and Simulation, Saab.

The Austrian army has previously purchased Saab simulation systems for its tanks, anti-tank weapons and soldiers. This contract includes Saab's next generation of soldier training systems with new add-on equipment that will extend the current system. Saab will also deliver a mid-life upgrade for Austria's existing vehicle and anti-tank training systems. The contract will provide more capability for training conscripts and professional soldiers.

Examples of other users of Saab's live training systems are the US, UK, Netherlands, Sweden, Denmark, Norway, Finland, Slovenia, Bulgaria, Estonia and Czech Republic.

For further information, please contact:

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Saab serves the global market with world-leading products, services and solutions within military defence and civil security. Saab has operations and employees on all continents around the world. Through innovative, collaborative and pragmatic thinking, Saab develops, adopts and improves new technology to meet customers' changing needs.

Source: Epicos, SAAB

Pratt & Whitney Renews Joint Venture Agreement for Customer Training Center in Beijing

Pratt & Whitney, a United Technologies Corp. company, has signed a 15-year renewal for its joint venture agreement between United Technologies Far East Ltd. and the China Aviation Supplies (CAS) Holding Company to support the Pratt & Whitney Customer Training Center located in Beijing, China.

The Customer Training Center has been in operation for more than a decade and has provided tailored customer technical training courses regarding Pratt & Whitney and V2500 engines for more than 14,000 students based in China, Russia, Singapore, Thailand, and Korea. This is the equivalent of 300,000 hours of training. Pratt & Whitney and IAE International Aero Engines AG engines power a fleet of more than 1,200 aircraft in China and are recognized as a technology leader in engines for narrow body aircraft.

"Providing Chinese aircraft operators with high-quality and thorough aviation maintenance training is critical to the success of our aviation industry," said Li Hai, president and CEO of CAS. "As the industry continues to grow through the integration of new technologies like the GTF engine, demand for this type of training will only increase."

"Our customers in Asia are extremely important to us and we are pleased to provide valuable training that will enable them to support their Pratt & Whitney engines," said Mary Ellen Jones, vice president, Commercial Engines Sales, Asia/Pacific & China, and member of the joint venture board of directors. "Our Customer Training Center in China is a key component of our strategy to ready customers before receiving their GTF engines, as we strive to bring training as close to our customers as possible."

Pratt & Whitney is a world leader in the design, manufacture and service of aircraft engines and auxiliary power units. United Technologies Corp., based in Farmington, Connecticut, provides high-technology systems and services to the building and aerospace industries. To learn more about UTC, visit its website at <u>www.utc.com</u>, or follow the company on Twitter: @UTC.

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Source: Epicos, Pratt & Whitney

Flexjet takes delivery of its first Embraer Legacy 500

Embraer Executive Jets today announced that Dallas-based Flexjet LLC, a leading provider of fractional jet ownership services, received its first Legacy 500 business jet.

"It's a great privilege to have been selected by Flexjet for the expansion of its world-class fleet," said Marco Tulio Pellegrini, President & CEO, Embraer Executive Jets. "The Legacy 500, and soon the Legacy 450, will deliver true innovation to Flexjet customers, and we are committed to providing the highest level of customer support and service."

Flexjet Chief Executive Officer Michael Silvestro said, "We know that current and prospective Owners are seeking cabins that are larger and more luxurious than those typically found in this category, complemented by the newest technology and optimized performance. We are thrilled to bring the innovative Legacy midsized cabin solution to the market starting this month."

Flexjet's fractional program already features the Embraer Phenom 300 light jet.

Since certification by Brazil's ANAC (Agência Nacional de Aviação Civil) in August 2014, the Legacy 500 has been certified by another five aviation authorities in the U.S., Mexico, the European Union, the Middle East, and Australia.

About Flexjet

Dallas, Texas-based Flexjet LLC first entered the fractional jet ownership market in 1995. Flexjet now offers fractional jet ownership and leasing. Flexjet's fractional aircraft program is the first in the world to be recognized as achieving the Air Charter Safety Foundation's Industry Audit Standard, and Flexjet is the first and only company to be honored with its 14th FAA Diamond Award for Excellence. Flexjet's fractional program fields an exclusive array of business aircraft—some of the youngest in the fractional jet industry with an average age of approximately six years. Flexjet is a member of the Directional Aviation family of companies. For more details on innovative programs and flexible offerings, visit <u>www.flexjet.com</u>.

Follow on Twitter: @EmbraerSA

Source: Epicos, Embraer