

Click here or visit www.epicos.com

Volume 8 Number 45 - Wednesday, 09 November 2016

Part I: Aerospace and Defense International Trade Summit

- 1. Interview with Ms. Natasha Keylard, Senior Commercial Specialist, U.S. Commercial Service
- 2. Dutch Defence Industry: Competencies, The "Triple Helix" and Exports
- 3. Epicos "Industrial Cooperation and Offset Projects"
- 4. Development of a customized Howitzer crew training and simulation system
- 5. Development of a tethered aerostat system for surveillance and reconnaissance purposes
- 6. News from our A&D Business Network

Part II: Epicos Newsroom

- 1. LEIDOS Awarded Army Contract for Driver Training Simulation Systems
- 2. Airbus Defence and Space Awarded Contract for Maritime Network Evolution With the UK Ministry of Defence
- 3. Air Astana takes delivery of its first A320neo
- 4. Northrop Grumman Welcomes Selection of UK for Global F-35 Lightning II Component Maintenance, Repair, Overhaul and Upgrade Services
- 5. Moog MONARC-22 Thrusters to Maneuver MetOp-SG Weather Satellites

Interview with Ms. Natasha Keylard, Senior Commercial Specialist, U.S. Commercial Service





Ms. Natasha Keylard, Senior Commercial Specialist, U.S. Commercial Service, gave an exclusive interview to Epicos, regarding the third **Aerospace and Defense International Trade Summit**. Among others, she stated that: "International Primes, Tier 1s, and SMEs in search of partnerships to win contracts and increase business will find this the perfect forum to achieve this goal".

Could you please describe the main focus of the Aerospace and Defence International Trade Summit that will take place on November 15-16th, 2016 in Rotterdam, The Netherlands?

The Aerospace and Defense International Trade Summit fosters partnership opportunities for innovation and growth. International Primes, Tier 1s, and SMEs in search of partnerships to win contracts and increase business will find this the perfect forum to achieve this goal. The summit aims to increase networks and boost long-term sales for all participants.

Who is the organizer of the Summit?

The Netherlands Industrial Defense and Security Manufacturers Association (NIDV) is coorganizing this event with the U.S. Commercial Service, the export promotion agency of the U.S. Department of Commerce.



What are the main benefits a company may have by participating in the Summit?

Companies can expect to learn about trends and business opportunities during the conference sessions in the morning. Topics that will be presented include:

- ✓ Industrial policy in the Netherlands: A joint effort by industry and government
- ✓ Aerospace Opportunities in the Netherlands
- ✓ Cooperation between the Armed Forces and Industry
- ✓ Technology Partnering Opportunities
- ✓ Bringing Innovative Technology to NATO
- ✓ Innovation Through Partnerships by The Boeing Company

Companies will also have the opportunity to meet one-on-one with government or private sector contacts during the B2B sessions in the afternoon.

> How many companies and from how many countries will participate in the Summit?

Currently, 64 companies from 6 countries are participating. We have received interest from many countries from quite a few additional countries that pledged to make a decision to join over the coming week. We expect the participation of 100 companies from 10-12 countries.



➤ Is there any connection between the Trade Summit and the annual "NIDV Defense Symposium & Exhibition"?

There is a strong connection between the Trade Summit and the NIDV Symposium. The Trade Summit is aimed at attracting a broader international audience while the focal point of the NIDV Symposium is the Dutch defense industry. The two complement each other perfectly and allow participants to receive optimal exposure and results at minimal time and cost.

For additional information please visit the Aerospace and Defense International Trade Summit website

Dutch Defence Industry: Competencies, The "Triple Helix" and Exports





Ministry of Defence

Dutch Aerospace and Defence (A&D) industry features high-tech production, frequent innovation and highly skilled personnel. Dutch defence industrial base includes a few manufacturers of complete weapon systems (mainly within the maritime sector, which is able to provide a wide range of platform) and a bigger number of small and

medium-sized enterprises (SME) as suppliers of sub-systems and components. Many companies are niche-oriented and are active in both the civil and military domain. According to official estimations the Dutch defence industry exports goods worth approximately 1.5 billion Euros every year. It is worth mentioning that Dutch arms exports are rather diversified in their geographical structure, as approximately 30 countries have imported

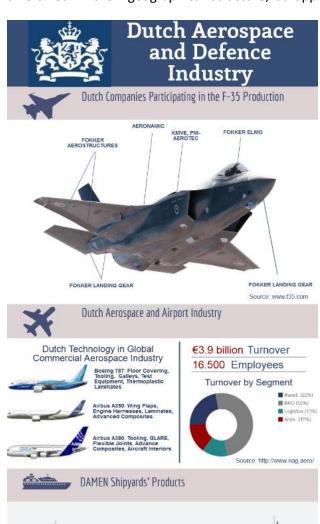
defence equipment from Netherlands in 2015.

The Dutch A&D industry is mainly gathered in two areas, the Maastricht Aachen Airport (MAA) and the Province of North Brabant at South Netherlands. At the Maastricht airport several hundreds of employees work for aerospace MRO companies, such Hamilton Sundstrand, Samco Aircraft Maintenance (base maintenance) and MAAS aircraft Several Aerospace and painting. Defence companies (mainly involved in the production of military vehicles as well as military and civil aviation), with an excellent reputation and international portfolio have their industrial bases at the province of Brabant.

In order to further enhance local defence industry, Dutch authorities created a cooperative pattern including the government, indigenous Defence and Security Related Industry (NL DTIB) and knowledge institutions. This "Triple Helix", as it is called, has as a purpose to reinforce the

innovative capability and independent position of the entire defence and security sector. In this context, government refers to the Ministries of Defence and Economic Affairs, the NL

Sigma Fast Attack
Source: http://www.damen.com



Sigma Frigate &

Air Defence & Command Frigate

Source: www.epicos.com

DTIB consists of small, medium-sized and large companies that are active in the defence market and the knowledge institutions are universities, semi-public institutions and knowledge institutes.

In an institutional level The Netherlands Industries for Defence and Security (NIDV) Foundation plays an important role in the Dutch defence industry, as it facilitates the sustainable positioning of the Dutch Defence and Security-related Industry (NL-DVI) in national and international orders (from the government and elsewhere) and in national and international supplier chains.

Netherlands is the home of several aerospace companies, such as the Fokker, CAE and Aeronamic and P-M Aerotech. According to official estimations provided by the Netherlands Aerospace Group (NAC) in 2014 the Dutch aerospace and airport industry recorded a total turnover of 3.9 billion Euros and generated 16500 jobs. Maintenance Repair and Overhaul (MRO) activities generated the majority (50%) of the industry's turnover, followed by manufacturing (22%), logistics (13%) and airport development (15%) activities. Several Dutch companies have provided components for the commercial aerospace industry such as tooling and aircraft interiors for the Airbus A380, wing flaps and engine harnesses for the Airbus A350 and floor covering as well as thermoplastic laminates for the Boeing 787.

The Dutch A&D sector is also involved in the development and production of the F-35 fighter aircraft, as the Benelux country is a key contributor to the development, production, and sustainment of the F-35 program. Currently, 27 Dutch companies have been awarded work, and 10 have active contracts for a total contract value of US\$750 million. Among others Fokker provides in-flight opening doors, flaperons, titanium engine parts and arresting gear, Fokker's sister company Fokker Elmo has been awarded the contract for the complete JSF wiring and inter connection systems. Additionally, Aeronamic B.V. signed a contract for the manufacturing, production, final assembly and testing of the forward Module as part of the F-35 Power & Thermal Management System, which will take place in the company's main facility in Almelo. Other companies that have already signed contracts for the delivery of parts for the F-35 Lightning are Thales, Aeronamic and KMWE.

It is expected that the program will generate in total more than 5 billion Euros in framework contracts, 8-10 billion in production contracts, 15-20 billion in maintenance contracts and up to 5000 long-term and high-quality jobs.

As it already mentioned the Dutch defence industry has a viable and well-established maritime sector. Damen Schelde Naval Shipbuilding (DSNS) is one of the most important "components" of this sector, as it manufactures a wide variety of vessels, used by Netherlands' and by several other navies around the world.

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: a-kintis@epicos.com

Development of a tethered aerostat system for surveillance and reconnaissance purposes



A company with core competencies in Intelligence Surveillance & Reconnaissance (ISR), offering related consultancy services and training programs, wants to extend its business line with the development of a tethered aerostat system for reconnaissance and surveillance purposes. The company is seeking potential partners for the development, enhancement and/or marketing of the system.

For Further Information Contact our ICO Department

Mail at: a-kintis@epicos.com

News from our A&D Business Network







GKN Aerospace's business unit Fokker has been chosen to maintain and service the landing gear for the F-35 fleet in Europe and the Pacific. The Dutch Ministry of Defence announced the selection today in a press release. The F-35 Joint Program Office in the USA announced in a press conference that the F-35 landing gear maintenance has been assigned to the Netherlands. It is the first time that maintenance work for the F-35 fleet in Europe and the Pacific

has been awarded. The potential value amounts to tens of millions of dollars over the lifetime of the program.

The selection covers the maintenance of wheels, brakes and shock strut assemblies of the F-35 landing gear, starting in 2021. GKN Aerospace's Fokker business unit has many years of landing gear related experience in maintenance, repair and overhaul (MRO) of amongst others the F-16 landing gear and the NH90 helicopter landing gear. As well as the maintenance activities, the landing gear business is also involved in the design and manufacture of the F-35 arresting gear and in the development of the F-35 composite landing gear drag brace.

Hans Büthker, CEO of GKN Aerospace's Fokker business unit, said: "Together with our partners, we are proud to expand the industrial participation to the F-35 maintenance phase. This represents the next and exciting step in the F-35 program, on which we can continue to build in the years to come. F-35 maintenance will create long-term employment for skilled technical employees in the aerospace industry."

GKN Aerospace has been involved in the F-35 program since the start and has designed and manufactured electrical wiring interconnection systems, flaperons, in-flight opening doors, cockpit canopy, air frame parts, engine parts and arresting gear for all F-35 aircraft that are currently flying and in production.

For Further Information Click Here

SAAB Receives Order from FMV for a New Helmet Mounted Display System



Defence and security company Saab has received an order from the Swedish Defence Material Administration (FMV) for an advanced helmet mounted display (HMD) system, called Targo. The new system will be used for the Swedish Air Force's Gripen E fighter aircraft. The order value is approximately SEK 119 million. Deliveries

will take place between 2022 and 2026. The Targo system will be manufactured and supplied by the Brazilian company AEL Sistemas (AEL), and has also been ordered by Brazil for the Brazilian Air Force Gripen NG fighters.

Pilots equipped with Targo will be able to better locate, track, identify and engage air and ground targets, as the system provides situational awareness and easier engagement options. A helmet mounted visor displays flight information such as altitude and air speed, as well as cueing targets and supplying supporting tracking data to the pilot.

"By aiming the head rather than the entire aircraft at the target, I can rapidly lock sensors and missiles on to the target and thus use the full performance of the missile. This makes it possible to shoot the missile instantaneously after target detection and identification, with eyes on target constantly. The system can also designate targets for the pilot leading to a faster assessment of the tactical situation" says Hans Einerth, Wing Commander Flying at Saab.

HMD-systems are already operational with the current Swedish Air Force Gripen fleet. With the new Targo HMD system for Gripen E, Swedish Gripen pilots will, among other features, get night cueing and display capabilities.

AEL Sistemas S.A (AEL) is a supplier for the Gripen NG in Brazil and a partner in the technology transfer programme as part of the F-X2 programme. AEL will, in addition to delivering the HMD system, also provide the wide area display (WAD) and the head-up display (HUD) for Brazil's Gripen NG.

For further information, please contact:
Saab Press Centre,
+46 (0)734 180 018,
presscentre@saabgroup.com
www.saabgroup.com
www.saabgroup.com/YouTube

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.

Epicos NewsRoom



LEIDOS Awarded Army Contract for Driver Training Simulation Systems

Leidos has won a prime contract from the U.S. Department of the Army's Program Executive Office for Simulation, Training and Instrumentation to finalize and launch 14 Common Driver Trainer (CDT) systems. The single-award, cost-plus-fixed-fee contract has a two-year base period of performance and one sixteen-month option. If all options are exercised, the contract is worth more than \$10 million.

The simulators include student training stations, after action review and assistant driver stations. In addition, there are four instructor operator stations. The CDT systems will be completed at Leidos' state-of-the-art 42,000 square-foot Lee Vista Integration Facility in Orlando, Florida. After completion, the systems will be delivered to Fort Leonard Wood, Missouri.

CDT simulation provides training in critical driver or crew tasks that are either time consuming, resource constrained or too dangerous to conduct on actual equipment. However, with the use of a CDT simulator, tasks can be easily repeated for enhanced training. The new systems are expected to improve Fort Leonard Wood's current driver training throughput capacity.

"The development and implementation of these simulations are vital to the initial training and ultimate success of tactical vehicle operators and crews," said John Fratamico, president of the Leidos Advanced Solutions Group. "As the original developer of the Common Driver Trainer product line, Leidos understands the value of these simulators, and our team looks forward to fielding these new systems at Fort Leonard Hood in further support of the PEO STRI's mission to achieve Army readiness."

About Leidos

Leidos is a global science and technology solutions leader working to solve the world's toughest challenges in the defense, intelligence, homeland security, civil, and health markets. The company's 33,000 employees support vital missions for government and commercial customers. Headquartered in Reston, Virginia, Leidos reported pro forma annual revenues of approximately \$10 billion for the fiscal year ended Jan. 1, 2016 after giving effect to the recently completed combination of Leidos with Lockheed Martin's Information Systems & Global Solutions business (IS&GS). For more information, visit www.Leidos.com.

Source: Epicos, Leidos

Airbus Defence and Space Awarded Contract for Maritime Network Evolution With the UK Ministry of Defence

Airbus Defence and Space has been awarded the Maritime Network Evolution contract with the UK Ministry of Defence. The contract value amounts to \pm 36 million, and will cover the communications networks of 20 Royal Navy warships, including Type 45 Destroyers and Queen Elizabeth Class carriers, upgraded over the next four years.

This solution creates the Internet Protocol backbone of the future Maritime Architecture and extends the life of the military satcom well into the middle of the next decade. It will remove obsolete equipment, remove the dependency of serial services and allow platforms to have the ability to select their own communication bearers for operations. This programme has been achieved without having to compromise any of the key military requirements needed by our Royal Navy warships to defend against any major threat scenario, whilst keeping them at the forefront of modern technology.

"For more than a decade now we have provided the UK with Maritime Communications capability. With this evolution programme we continue delivering the most advanced capabilities possible to the Royal Navy", said Richard Franklin, Head of Secure Communications, Airbus Defence and Space. "This programme is an example of how efficient Airbus Defence and Space is working with the UK MOD to refresh existing technologies, keeping the infrastructure up to date and providing future proof and engineer enhanced solutions."

About Airbus Defence and Space

Airbus Defence and Space, a division of Airbus Group, is Europe's number one defence and space enterprise and the second largest space business worldwide. Its activities include space, military aircraft and related systems and services. It employs more than 38,000 people and in 2015 generated revenues of over 13 billion Euros.

For Further Information Click Here

Source: Epicos, Airbus Defence and Space

Air Astana takes delivery of its first A320neo

Air Astana, Kazakhstan's flag carrier, has taken delivery of its first A320neo at Airbus headquarters in Toulouse in the presence of airline executives and government officials. The aircraft leased from Air Lease Corporation is part of a deal announced at Farnborough Airshow 2015 for 11 A320neo Family aircraft. The A320neo will join Air Astana's Airbus fleet of 13 A320 Family aircraft, and will be operated on domestic and international network.

Air Astana's A320neo is powered by Pratt & Whitney engines and features a two class cabin layout, seating 16 passengers in business and 132 in economy.

"The A320 Family has proven to be a success in service with Air Astana over the past ten years, for its passenger appeal, low operating costs and reliability" said Peter Foster, President and CEO, of Air Astana. "The A320neo Family offers significant improvements to passenger comfort, fuel efficiency and operating capability, particularly on longer range routes to Asia and Europe."

"We congratulate Air Astana on their first A320neo delivery. Becoming the first operator of the world's most advanced single-aisle aircraft in the CIS. The airline will not only benefit from the commonality with their existing A320 Family fleet but also from its unprecedented passenger comfort and fuel efficiency "said John Leahy Airbus Chief Operating Officer, Customers.

The A320 Family is the world's best-selling single aisle product line with more than 12,750 orders since launch and more than 7,200 aircraft delivered to more than 300 operators worldwide. The A320neo Family incorporates latest technologies including new generation engines and Sharklet wing tip devices, which together deliver more than 15 percent in fuel savings from day one and 20 percent by 2020.

For Further Information Click Here

Source: Epicos, Airbus

Northrop Grumman Welcomes Selection of UK for Global F-35 Lightning II Component Maintenance, Repair, Overhaul and Upgrade Services

Northrop Grumman Corporation welcomes the announcement by the F-35 Joint Program Office (JPO) in the U.S. that it has assigned the U.K. to provide global maintenance, repair, overhaul and upgrade (MRO&U) services for F-35 Lightning II Air Vehicle Depot-Level Repairable Components.

Northrop Grumman is part of the innovative partnership between the U.K. government-owned, Defence Electronics and Components Agency, and BAE Systems that will provide these services. The MRO&U services will be operational in early 2018 and will be based at MoD Sealand in northeast Wales.

"The selection of the U.K. to undertake this work is a notable achievement and recognises the military aircraft support skills and capabilities that we have here in the U.K.," said Andrew Tyler, chief executive, Northrop Grumman Europe. "Northrop Grumman has proven experience working alongside global customers delivering innovative support solutions and we look forward to working closely with our partners and the JPO to bring that experience to F-35 component MRO&U services."

"MRO&U components are one element of the Northrop Grumman F-35 global sustainment solutions. As the U.S., partner nations, and global customers activate their fleets, Northrop Grumman and the industry team will continue to ensure F-35 Lightning II weapon systems are available for tasking and mission training," said Steve Hogan, vice president, Global Sustainment, Northrop Grumman Technology Services.

This announcement builds upon the contribution made by Northrop Grumman's crucial role in the development and production of the aircraft as a principal member of the F-35 industry team, together with our strong pedigree in platform support, upgrade and sustainment.

Northrop Grumman is a leading global security company providing innovative systems, products and solutions in autonomous systems, cyber, C4ISR, strike, and logistics and modernization to customers worldwide. Please visit www.northropgrumman.com for more information.

For Further Information Click Here

Source: Epicos, Northrop Grumman

Moog MONARC-22 Thrusters to Maneuver MetOp-SG Weather Satellites

Moog Inc. Space and Defense was recently selected to provide MONARC-22 thruster engines for the second generation of Meteorological Operational (MetOp-SG) satellites to be built by Airbus. Moog has been a trusted propulsion component supplier to Airbus for over thirty years. This is the first time Airbus has ordered the MONARC-22 engines. MetOp-SG is a EUMETSAT polar orbiting weather and climate-related satellite system that provides weather data to users worldwide.

"Moog is honored to be the selected to for this program." states Paul King, Product Line Manager for Moog's Spacecraft Controls propulsion products. "The seventy-five engines to be manufactured for the six MetOp-SG satellites will be delivered to Airbus over the next fourteen months."

he MONARC-22 engine is a hydrazine monopropellant rocket engine designed specifically for spacecraft use. These engines have been used on a variety of missions including geosynchronous and space exploration applications. For the MetOp-SG satellites, the engines will be used for spacecraft attitude and orbit control maneuvers while in low Earth orbit.

The engines are being built and tested at the Moog facility in Niagara Falls, NY. The flow control valves are manufactured by the Moog's facility in East Aurora, NY. Moog is also manufacturing latching isolation valves for these spacecraft in East Aurora.

Moog Inc. is a worldwide designer, manufacturer, and integrator of precision control components and systems. Moog's high-performance systems control military and commercial aircraft, satellites and space vehicles, launch vehicles, missiles, automated industrial machinery, wind energy, marine and medical equipment. Additional information about the company can be found at www.moog.com. Additional information about Moog's Space Sector can be found at www.moog.com/space.

Source: Epicos, Moog Inc.