

Defence Industry Bulletin

Insider knowledge for the discerning defence and security professional

Issue #10 July 2016

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International pilots sharing the tarmac in Linköping, Sweden. Source: Georg Mader

With the UK's decision to leave the EU dominating the headlines in Britain, the potential impact of withdrawing on the European Aerospace and Defence industry is being hotly debated. We can't guarantee what the shape of the markets will look like by October's issue but we can guarantee insight, facts, and business intelligence for the world at large!

In this issue of *Defence Industry Bulletin*, Oliver Austin reports as Norway lays out its defence and security investment plan and Lieutenant General Ben Hodges talks to us about the state of security in Europe – including the deterrent measures being levelled at Russian forces across the Eastern divide.

In naval news, we look at how Canada is streamlining its surface combatant programme and get the latest as Italy's former MINERVA class are transformed into OPVs for the Bangladesh Coast Guard. We've got the details of Qatar's \$4bn

surface vessel deal with Fincantieri, the unveiling of new fast patrol vessels by two Italian shipyards, and Turkey's plan to spend big on new naval equipment.

From Eurosatory, Victor M.S. Barreira reports on France developing a new 6x6 combat vehicle for delivery from 2020 while Eugenio Po reports as the Iveco-Oto Melara Consortium (CIO) unveiled its prototype of the new CENTAURO 2 Mobile Gun System (MGS). Also from Eurosatory, *DIB* has the details as France discusses the modernisation of its Leclerc MBT.

Ahead of Farnborough in July, Boeing is expected to announce a \$2.9bn contract for a fleet of new Apache helicopters for the UK MoD, although this will be a good bellwether to understand more about the potential impact of Brexit. We look at the deal that is bringing the AW139 to Pakistan in a SAR role and Rory Jackson focuses on unmanned developments as Delair-Tech reveals a small UAV for military ISTAR operations.

In The Briefing Room, Georg Mader interviews Saab CEO Håkan Buskhe about The JAS39E's enhancements and speaks to Major General Mats Helgesson, Chief of Swedish Air Force Staff. We've also got an exclusive interview with Brigadier José A. Crepaldi (FAB), Director of Brazilian Department of Defence Products, alongside a chat with Brigadier General Kim Jäämeri, Commander of the Finnish Air Force.

We hope you enjoy the issue – and the summer!



Andrew Elwell and Richard de Silva

Brexit confuses UK and European defence industries *The Editors*

Like everyone, *Defence Industry Bulletin* remains largely in the dark about the future impact of Britain's decision to leave the European Union and will be keeping a careful eye on developments over the coming weeks and months.

In the immediate aftermath, we believe the Leave vote is unlikely to have a significant impact as much of the industry holds off on making snap decisions in terms of jobs, ongoing contracts, and investment plans. However, in the long-term, the outlook will depend on exactly when the UK triggers Article 50 and decides on agreed terms (for example – will the UK have access to the single market?). While bilateral cooperation with Europe already exists outside of the EU institution, Brexit will inevitably make commercial and security issues more ambiguous. A limping pound will make imports from North America more expensive, meaning many carefully budgeted programmes may suffer, but if the economy makes a robust recovery, the UK could be well placed to renegotiate new trade deals within and without Europe.

Strategically, while the North Atlantic Treaty is separate from EU

matters, a weaker union may well impact NATO's overarching strategy. Meanwhile, EU task forces, such as anti-piracy efforts in Africa, may see the UK unmooring from these operations and the overall effort becoming harder to resource. Such a detachment could potentially see resurging trouble in several vulnerable regions. However, in the interests of security, we believe the UK is more likely to continue to participate in these types of exercises as long as they remain affordable and mutually beneficial. And that is the key point: the impact of the Leave vote on Defence will not be directed by political or strategic decisions, but rather the state of the economy and the UK's (and Europe's) ability to continue funding its security interests.

Speculation has been rife that other European nations may attempt to offset the loss of British defence spending by boosting their own or indeed accelerating plans for an EU defence consolidation and centralisation. Pooling and sharing efforts are almost certainly likely to increase. However, the UK may see its own internal defence spending decrease as the financial markets recoil and trade with EU nations

becomes a more arduous and expensive process.

Information security may suffer if the UK is slow to decide on how to interact with new data regulations and directives already being signed off in Europe. Counter-terrorism efforts by law enforcement agencies (UK and European) will need to be properly negotiated to ensure intelligence and data sharing is not interrupted.

Further, antagonistic nations are likely to continue to push for the continued breakup of the EU through further referendums on the continent, which could demolish economic sanctions and lead to a greater risk of asymmetric incursions into European territory (like that of the Crimea incident). A new Scottish independence referendum is being discussed but a 2014 RUSI report ahead of the first vote has already outlined the dangers to defence and security posed by a Scottish departure.

If our readers have opinions on the matter, we are happy to hear them. Let us know your thoughts at haveyoursay@defenceiq.com.



Norway lays out defence and security investment plan Oliver Austin

Oslo has released its 20-year plan proposing new spending towards national intelligence, situational awareness, and survivability for the armed forces, among its range of defence and security needs.

The Government is recommending expenditure at \$861m over the next four years, with the armed forces receiving a total of \$19.7bn in additional funding over the next two decades. However, the proposed hike would still fall short of meeting NATO's '2 percent of GDP' defence spending target.

Among the biggest expenses will be the purchase of four new submarines, a maritime patrol aircraft (MPA) replacement programme, modernised air defence systems, and finalising payment for the F-35 programme, of which 52 are due to enter Norwegian service. The proposals also include the introduction of longer range weapons to Norway's current NASAMS II-system, as well

“We cannot have security without sustainability. This plan aims to provide both.”

as dedicated long-range air defence systems to protect critical areas. For the first time, the Long Term Plans account for the cost growth of military equipment beyond standard inflation as a key piece of financial planning.

Defence Minister Ine Eriksen Søreide suggested that with the deterioration of the security situation in Europe in recent years, the Government has to make invest wisely to protect the country from future threats.

“We are looking to strengthen short-term readiness, to invest in future capabilities and to create real long term sustainability,” she said. “We have to ensure that we, along with our allies, have the means to present a credible deterrent against the use of force. This plan enables us to do just that.

“While every new generation of equipment and technology allows us to do much more than the previous one that added capability comes at a price. We can no longer accommodate that trend simply by buying fewer platforms or by internal efficiency savings. We cannot have security without sustainability. This plan aims to provide both.”

Parliament will consider the proposal after the summer recess.



*Norway's strategy will address both short- and long-term readiness.
Source: PRT Meymaneh*

Canada streamlines surface combatant programme *Oliver Austin*

Canada is taking a streamlined procurement approach to speed up delivery of the Canadian surface combatant (CSC) vessels to the Royal Canadian Navy, in a move that could cut the \$20bn programme down by two years.

The approach, which is described as 'simplified' and 'transparent', was announced in June by Public Services and Procurement Minister Judy Foote and John McKay, Parliamentary Secretary to National Defence Minister.

Construction of the CSC vessels is scheduled to begin in the early 2020s

Under the newly approved method, an existing ship design will be used as the basis for modification with a single competitive process, rather than enacting a custom-design top-to-tail approach among shipbuilders and system integrators. An RFP on the design is due to be issued in the summer.

"The Canadian Surface Combatant project is the most complex procurement in Canadian history," Foote told the press.

"The [CSC] project is the most complex procurement in Canadian history. Along with the Arctic Offshore Patrol Ships project, it will create 2,400 direct shipbuilding jobs in Halifax. We continue to seek opportunities to deliver ships as quickly as possible and

to ensure that this and other ship construction projects provide middle-class jobs and prosperity to hardworking Canadians. This streamlined approach is aligned with our efforts to modernise procurement and to make it easier for Canadian businesses to work with government."

Construction of the CSC vessels is scheduled to begin after the completion of the Arctic Offshore Patrol Ships in the early 2020s, with the intention for the ships to serve as the major surface component of Canada's maritime combat force.

Defence procurement decisions have been taking an increasingly front-bench focus for the nation as Prime Minister Trudeau faces questions over the Defence Policy Review, the National Shipbuilding Strategy, the country's commitment to international operations and the procurement of a fighter aircraft.

A report submitted to Canada's Public Services and Procurement department at the end of 2015,

advising the Government to beware sole-sourced military contracts due to common cost overruns, has also become public knowledge.

The Canadian Press obtained the report, which cited a list of potential pitfalls in not running an open competition, as the Liberal administration look set to award Boeing a deal for Super Hornet fighter jets to replace Canada's ageing CF-18s.

A long-term fighter replacement is desperately needed as the capability gap looms closer. During the election campaign, Trudeau's administration promised to discard the F-35 in favour of holding an open competition but media rumours – which Defence Minister Harjit Sajjan denies – are suggesting that a 'behind-the-scenes' decision has already been all but confirmed.



Concept image of the impending Canadian Surface Combatant.
Source: RCN

Former Italian corvette MINERVA class in transformation to OPV for the Bangladesh Coast Guard Eugenio Po

Under a contract signed last July, Fincantieri is working on four MINERVA class corvettes, which are second-hand Italian Navy ships, to upgrade and modify them to Offshore Patrol Vessels for the Bangladesh Coast Guard.

On two ships, the former MINERVA and SIBILLA, refitting is nearly complete; the new names for these vessels are CGS SYED NAZRUL (PL-71) and CGS TAJUDDIN (PL-72). Fincantieri will start upgrading the second couple of units, the former URANIA and DANAIDE, renamed CGS MANSOOR ALI (PL-73) and CGS KAMRUZZAMAN (PL-74), during the summer. The delivery of the first

two units is expected by the end of the year while the other two ships will follow in 2017.

The main purpose of the ships will be the patrol and control of the EEZs (Economic Exclusive Zones) and the maritime borders, but they will also be optimised also for humanitarian operations.

The main area of intervention of the refitting concerns the hull and the systems. As a matter of fact the extensive refit comprises the strengthening of the hull, which requires a complete upgrade of the two Wärtsilä BM-230.20 DVM diesel main engines and the removal

of most sensors and armaments.

Regarding armament, the only weapon installed is a 25/80 mm KBA Rheinmetall cannon in a Leonardo- Finmeccanica turret while the sensor suite is limited to a couple of navigation radars.

The main characteristics of the vessels are a displacement of 1,285 tonnes, a length of 87 m, a beam of 10.5 m (34 ft) and a draught of 3.2–4.8 m. The maximum speed of the OPVs is 25 knots while the range is around 3,500 nautical miles at 18 knots. The crew is around 120 men, 113 sailors and 7 officers.



The CGS SYED NAZRUL (PL-71) in La Spezia shipyard at the end of the refitting process.

Source: Eugenio Po

Qatar awards Fincantieri \$4bn surface vessel contract T. Magill

The Qatari Ministry of Defence has settled on Italian shipbuilder Fincantieri to outfit the Qatar Emiri Naval Forces with a portfolio of seven new surface vessels in a deal worth \$4.53bn.

The modernisation plan includes four new 100m-long corvettes, two offshore patrol vessels and one amphibious landing dock, along with ongoing support services for 15 years post-delivery.

Qatar has stated that the vessels will support maritime surveillance and patrol around the nation's EEZ. Construction is scheduled to begin in 2018 at the company's shipyards in Trieste, with an ensured project period of six years.

Giuseppe Bono, Fincantieri's CEO, announced that the deal "creates a true partnership with the Qatar Emiri Naval Forces, which now position themselves as technologically advanced. The

The deal is reported to be part of a wider Letter of Intent between the Qatari and Italian governments to enhance cooperation.

backlog increase will guarantee work for another ten years at least, ensuring continuity to the activities in the shipyards, creating the conditions to contribute to the

country's growth and increase the value for the shareholders."

Bono praised the input of the Italian System, saying that it had responded "to the great ambitions of the major national companies, and to the key role played in this deal by our government and our navy, that supported us actively until the final closing of the agreement."

The company had been in competition with France's DCNS. The deal is reported to be part of a wider Letter of Intent between the Qatari and Italian governments to enhance cooperation.

Newly named Leonardo-Finmeccanica will also benefit from the contract, securing the rights to supply the vessels with the latest generation of naval combat systems, on-board sensors and radars.



*Qatar's new vessels will begin to take shape from 2018.
Source: Fincantieri*

Turkey plans to spend big on naval equipment *T. Magill*

Ankara has announced in recent weeks that it will be investing in a significant expansion of its naval assets in the coming years following the activity being conducted under its MILGEM corvette programme.

Ismail Demir, Turkey's Undersecretary for Defence Industries, announced that four additional corvettes will be ordered to double the size of the existing order, which has seen two 'new generation' Ada-class corvettes built, a third launched in June, and a fourth due for delivery in 2020. However, the additional ships are intended to be bigger and will boast even more advanced capabilities.

Turkish President Recep Tayyip Erdogan said the country is seeking 'full self-sufficiency in defence systems' by the year 2023 to mark the centennial of modern Turkey.

The development would indicate that the MILGEM programme –

Turkey's local industry currently meets 60 percent of the military requirements

designed to support search and rescue, patrol, and anti-submarine warfare missions, while reducing dependence on foreign arms – has been used as a test-bed for Turkey to begin work on its first indigenous frigate, known as the TF-2000. Design, development and construction of the frigate is presently earmarked for completion in the 2020s.

Turkey's local industry currently meets 60 percent of the military

requirements, up from around 25 percent in the early 2000s. Aside to investment into its own naval forces, officials have indicated that further platforms are to be built for the export market.

Recent weeks have already seen leaps in progress for the Turkish naval industry and foreign partnerships.

May saw SSM and Turkish shipyard Sedef Shipbuilding Inc. join Spain's Navantia to begin work on Turkey's first landing platform dock in a \$1bn arrangement. The following month saw Turkish shipyard Dearsan sign a memorandum of understanding with the Kazakh government for technical cooperation for the construction of six corvettes with VTOL UAV capability. Meanwhile, six new submarines are being built in Turkey under German license.



The F-511 TCG Heybeliada is the first of Turkey's eight new corvettes.
Source: wikimedia

U.S. Navy issues RFI for CH-53K fleet delivery T. Magill

June saw a request for information released online by the U.S. Navy for the programme management, engineering, logistics support, various recurring and nonrecurring efforts, and the fabrication, assembly, and delivery of 20 low-rate initial production (LRIP) 3 and LRIP 4 CH-53K helicopters between 2018-2024.

The CH-53K 'King Stallion' is a heavy-lift cargo helicopter currently being developed by Sikorsky Aircraft for the U.S. Marine Corps. The design features three 7,500 shp (5,590 kW) engines, new composite rotor blades, and a wider aircraft cabin than previous CH-53 variants.

Once introduced, it will be the largest and heaviest helicopter in any service of the nation's military, and the Marine Corps plans to receive 200 helicopters, including six systems demonstrators, at a total cost of \$25bn. Future military vehicles, such as the JLTV, which can fall within the 16,000-pound range, demand greater ship to

A successful test carry of a 20,000 lb load externally was performed for the first time in May.

shore transport capabilities, making the CH-53K an important investment.

April 2014 saw Ground Test Vehicle (GTV) testing, while the helicopter took its maiden test flight at the end of last year. A successful test carry of a 20,000-pound load externally was performed for the first time in May – ahead of schedule.

The aircraft is now due for Operational Assessment this

year, followed by a Milestone C production decision in 2017. Initial operational capability (IOC) is set for 2019, with full operating capability (FOC) expected in 2029, replacing the E- (and possibly the G-) variant.

Naval Air Systems Command (NAVAIR) stated in the RFI its expectation that prospective bidders for programme management will have (or have had) a working relationship with Sikorsky.

At the ILA Airshow in Berlin, the production plan was laid out to the press, detailing how the LRIP production of 26 CH-53K helicopters is due to commence at the tail-end of 2019 (Q1 FY 2020), then proceeding through four phases into Q4 2023 (Q1 FY 2024). Full-rate production will see 168 helicopters begin life between Q4 2019 to Q4 2031.

Interested parties must respond to the RFI by 18 June.



*IOA for the new CH-53K fleet is due in 2019.
Source: USN*

Two Italian shipyards unveil new fast patrol interceptors *Eugenio Po*

During Seafuture & Maritime Technologies, a maritime show held at the La Spezia Arsenal, two Italian shipyards unveiled their new fast patrol units for the first time. Vittoria Shipyard from Adria (Rovigo), a company specialised in paramilitary, commercial and passenger vessels up to 100 metres, presented its INTERCEPTOR 43'.

The new vessel is designed for maritime rescue operations, prevention of illegal immigration, smuggling and piracy. This prototype has a hull made in resin, glass fibre, carbon and Kevlar with a particular structure that allows the ship to reach high speeds while maintaining seaworthiness. Its main characteristics are an overall length of 14m, a beam of 2.81m, and a height of 1.98m. INTERCEPTOR 43' is designed mainly for military use and has a displacement of 9.93 tonnes while the crew is made of 6 sailors. The ship is powered by 4



The FB 60' SF from FB Design at Seafuture & Maritime Technologies
Source: *Eugenio Po*

outboard Mercury VERADO engines for an overall power of 1200 HP and a top speed of 60 knots and cruising speed of 40 knots.

FB Design company from Annone Brianza (Lecco) presented the FB 60'SF a new boat 18.2 m long capable of reaching a maximum speed of 60 knots and with a range above 500 nautical miles. The SAR 60' SF is powered by two MTU 10V Series 2000 engines each producing

1,200 kW and they drive through ZF Trimax surface propellers.

The SAR 60 is currently undergoing trials to fully establish its performance and FB Design is already talking to clients who are interested in this new lifeboat concept.



INTERCEPTOR 43' from Vittoria Shipyard at Seafuture & Maritime Technologies
Source: *Eugenio Po*



OFFSHORE PATROL VESSELS

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Reports claim Boeing may be set for Apache deal Oliver Austin

The Telegraph has claimed that the UK Ministry of Defence is “poised” to hand the \$2.9bn contract for a fleet of new Apache helicopters to Boeing Co.

According to officials at Boeing, even though the company may wrest the contract from Yeovil-based Leonardo-Finmeccanica (formerly AgustaWestland), it will continue to support and create jobs in the UK.

A spokesman stated that Boeing has doubled its UK workforce and spending with the UK supply chain in the last five years to more than 2,000 employees and almost £2bn (\$2.9bn) a year respectively, supporting 12,700 jobs in the tier one supply chain in the UK.

50 aircraft are planned for production under the contract.

The Apache request was attached to a large U.S. military deal, allowing the MOD to reduce costs as it seeks to balance the acquisition of a long-term, top-of-the-line platform with cost-effectiveness to the local economy and skills pool. According to some analysts, an off-the-shelf arrangement could see the Government saving millions over the coming years.

However, Boeing’s promise is doing little to ease fears with the 3,700 workers at the Yeovil plant as reports suggest that 600 jobs may be at risk should a US company seize the deal. Leonardo has also expressed concern about consequences to local production should they lose the bid, as existing work comes to an end in 2018. The original 67-strong fleet of British Apaches have been produced at Yeovil since 1995.

50 aircraft are planned for production under the contract, which will also include service and maintenance. The winning bidder is due to be publically announced in July at the Farnborough Air Show.



*The Apache request was attached to a wider MoD-U.S. military deal.
Source: US Army ASC*

Leonardo-Finmeccanica: Pakistan selects the AW139 for SAR role

Eugenio Po

The government of Pakistan has signed a contract for an undisclosed number of AgustaWestland AW-139 twin engine helicopters. The contract is part of a fleet renewal programme spread over several batches including a logistic support and training package. The AW-139 helicopters will be used to perform search and rescue across the nation.

The deliveries of these machines are expected in 2017. A total of 11 AW-139s are already in service in Pakistan, with 5 aircraft operated for Government relief and transportation duties.

This model is one of the bestselling machines of its category. A derivative version of the militarised variant, called AW-139M, has been proposed to the U.S. Army

for the Armed Aerial Scout (AAS) programme.

The Portuguese aircraft are armed with 6-barrel 20mm automatic cannon M61A1 Vulcan; Mk 82, M August 2015.



The AW-139 helicopter in flight.
Source: Leonardo-Finmeccanica

France acquires two ISR aircraft Victor M.S. Barreira

The French Ministry of Defence's armament procurement agency, the Direction Générale de l'Armement (DGA) announced on 23 June it has awarded Sabena Technics and Thales to deliver two fixed-wing aircraft for the French Air Force. The programme includes a third aircraft as an option.

The aircraft is to be based on the King Air 350ER platform of US aerospace contractor Beechcraft Corporation and will be designed

The programme includes a third aircraft as an option.

for the French military with increased intelligence, surveillance and reconnaissance (ISR) capabilities. The ISR suite will comprise

electro-optical payload and signal intelligence (SIGINT) payload. The package also includes ground-based mission preparation and debriefing mobile stations. The first aircraft will be delivered late 2018, with the second to be received in 2019.

Gripens likely to replace Botswana F-5s Oliver Austin

The Botswana Defence Force (BDF) has confirmed that it is negotiating with the Swedish Defence Materiel Administration (FMV) for between eight and 12 JAS Gripen C/D aircraft variants to replace its ageing fleet of F-5 fighter jets.

BDF commander Lt. Gen. Gaolathe Galebotswe confirmed that talks were underway as he addressed the parliamentary Public Accounts Committee to provide evidence on defence spending and capabilities.

“The Gripen fits our requirements and could give us a certain edge over our competitors,” Galebotswe said of the Swedish-made Gripen, while confirming the BDF had also made prospective trips to the U.S., Russia and China during its decision-making process to assess the likes of the F-16 and MiG variants.

“F-5s have become unsustainable for the BDF. We needed something that is cost-effective but still capable of carrying out our aerial defence mandate because we should have the capability to operate in both contested and uncontested space. I am talking about revitalizing BDF. The current F-5 planes once gave us the essential reach in terms of air defence capabilities...The Gripen was found to have the lowest operating costs. So if this deal happens, it will be between the governments of Botswana and Sweden.”

The existing F-5s were ex-Canadian fighters purchased in 1996 soon after Canada spent millions on modernising them. They have since provided the backbone of the BDF Air Wing under the local designation of BF-5s.

If sealed, the estimated cost of the replacement contract sits at \$1.7bn, with the financial impact off-set by the prospects of the establishment of a Botswana defence equipment industry. Such an industry is becoming more critical given the level of obsolescence creeping into the BDF's inventory and the general volatility of the region.

Owing to these problems, Botswana reportedly hopes to invest \$179m into 45 Piranha 3 8x8 wheeled armoured vehicles from General Dynamics European Land Systems-Mowag (GDELS-Mowag), as well as possible investment into MBDA's Mistral and VL MICA air defence systems



*Saab has frequently touted the Gripen's long-term cost benefits over competitors.
Source: Oleg V. Belyakov*

U.S. Air Force awards satellite control network contract to CACI Oliver Austin

USAF has contracted Virginia-based CACI International Inc. to maintain and operate the Air Force Satellite Control Network (AFSCN).

Officials of the Air Force Space and Missile Systems Center at Peterson Air Force Base in Colorado announced the one-year \$43.9 million deal with L3 National Security Solutions (NSS), which completed its \$550 million acquisition to CACI in February. Further options could see the contract extend to several years and \$445mn.

The contract, known as CAMMO — short for Consolidated Air Force Satellite Control Network Modifications, Maintenance and Operations — is one of several consolidation contracts planned by the Air Force Space and Missile Systems Center as it copes with shrinking budgets. The deal is also one of the largest space contracts the Air Force expects to award this year.

Under the agreement CACI's team of IT experts will provide continued operations and maintenance at eight AFSCN mission locations

throughout the world, as well as AFSCN factory compatibility testing, and phase-in sustainment activities for the same systems.

CAMMO will combine three existing contracts: the Air Force Satellite Control Network Contract, currently held by Honeywell Technology Solutions Inc. of Columbia, Maryland; the Engineering Development and Sustainment contract, now held by Lockheed Martin Information Systems & Global Solutions of Herndon, Virginia; and the Network Space Operations and Maintenance contract, held by Harris Corp. of Melbourne, Florida. Those contracts cover most of the activities associated with operating a large portion of the Air Force's satellite fleet, including data uplink and downlink, command and control, communications, software and testing at eight sites throughout the world.

The AFSCN is described as a 'critical' resource used to deploy and operate national security space systems. Among other features, it provides globally distributed telemetry, tracking, and commanding support for pre-

launch, deployment, and on-orbit anomaly resolution and disposal operations. The network also provides support for the operation, control, and maintenance of U.S. civil and military satellites, including telemetry, tracking, and commanding operations.

The AFSCN is described as a 'critical' resource used to deploy and operate national security space systems.

CACI personnel will undertake the work across a range of air bases, including Diego Garcia (British Indian Ocean Territory), Guam, Ka'ena Point (Hawaii); Bordon (Hampshire, UK), and Cape Canaveral (Florida). In total, the work has the potential to run until December 2023.



CAMMO is one of the largest space contracts the Air Force expects to award this year.

Source: USAF

Delair-Tech develops small UAV for military ISTAR operations Rory Jackson

Following a partnership with ECA Group, Delair-Tech, a seasoned designer and developer of UAVs for commercial and civil operations, has produced a new version of their DT26X aircraft intended for military users.

The two French companies are both veterans of unmanned system production. They announced their partnership in Paris on the 10th of June, in the run-up to the 2016 Eurosatory international defence and security industry show where the new UAV was unveiled. In addition to technical expertise, specialist experience from each company will be contributed not only the new DT26M but to all future fixed-wing and long-endurance tactical mini UAVs for the defence sector that result from their partnership. Delair-Tech has produced fixed-wing, long-endurance UAVs for years in both their DT26X and DT18 families for civilian markets and thus is able to offer drones that are cost-effective and user-friendly, and have been proven effective through thousands of flight hours internationally. Such qualities make Delair-Tech systems ideal for global militaries with constrained budgets for procurement and training.

Alternately, ECA Group has built and marketed products in defence markets for decades, ensuring that the systems produced through this partnership will be primed to deliver military-level technical and operational capabilities, to integrate into army systems, and to have logistical support co-ordinated for the duration of the vehicles' lifespans and for international export market networks.

Several smaller enterprises and agencies from throughout France

are also involved in the partnership, which "reflects a common goal to rally together the French industrial ecosystem," stated Delair-Tech founder Michael De Lagarde. "It's an alliance between a strong and experienced medium-sized company, and an SME, both providers of agility and innovation, to create new international French champions."

Several smaller enterprises and agencies from throughout France are also involved in the partnership.

The first of these, the DT26M, was designed and produced entirely in France from composite materials, specifically "Glass fibre and epoxy, with some components being reinforced depending on the resistance they need to have," as Delair-Tech Co-founder Benjamin Benharrosh explained to Defence Industry Bulletin at the show.

Launch and recovery systems have remained mostly unchanged in the move from the DT26X to the DT26M, though Benharrosh also commented that ease of deployment has been improved, with set-up time currently proven shorter than eight minutes. Once launched, the DT26M is capable of 150 minutes of flight - and resistance of winds up to 75 km/h - at a cruising speed of 50 kph.

The AES256-encrypted data and communications link extends for 50 km, allowing for wide exercise of the new 'DTEyeM' EO/IR gimbal, developed specifically for the new UAV.

The DTEyeM is a gyro-stabilised real-time video camera with full visibility through unlimited pan and tilt, as well as 36X EO zoom, digital IR zoom and 25 µRad angular resolution. Videotracking and geotracking is included with the platform software: up to four mobile targets can be tracked at a time, with 'click and track' functionality also available to users. Images may be enhanced onboard with respect to contrast, shutter, and gain.

Additional payload options for installation in the gimbal include laser illuminators and super resolution surveillance cameras. With 4kg of carrying capacity, the DT26M may also be fitted with an RGB camera payload for geographic 3D modelling, which can map in great detail up to 50 square kilometres' area per flight - a great boon in planning ground operations in urban areas where information such as locations of equipment and vehicles can be crucial. The drones are envisioned as being intensively used tools for tactical decision-making in land operations, such as security of vehicle convoys. The sturdiness and reliability of the DT26M have been tried and tested in extreme conditions such as deserts, mountains, cold weather, and low-visibility conditions with dust and wind. ➡

Control is maintained from a new ground station, also developed jointly between the two French companies. The GCS can implement both fixed-wing drones from Delair-Tech and IT180 type vertical takeoff drones from ECA - the latter of which are currently being used by the French military, and were also advanced at the show with the public unveiling

of the IT180-999 tethered rotary UAV for military surveillance and radio relay applications. Ultimately, this ground station will also be compatible with ECA's land robots, thus minimizing the logistics footprint from spare parts, training, and other areas related to the operations of robotic systems within armed forces.

Defence Industry Bulletin also inquired about navigation systems and power specifications on board the DT26M, but Delair-Tech declined to release details on these aspects of the craft at the time of the show.



*Delair-Tech develops small UAV for military ISTAR operations.
Source: ©Romain_Laporte*

Expal debuts mortar training simulator Rory Jackson

The last few years have seen the rise of a number of radical new military training simulators benefiting from advances in technologies such as virtual reality, motion sensors, and hardware and software customisation. New simulation systems have been developed for not only manned and unmanned air vehicles, but for naval vessels, land vehicles, and military and police troops. Now, Spanish defence and security company Expal has developed an advanced training simulator for mortar unit operations.

Unveiled to an international audience numbering tens of thousands, at the 2016 Eurosatory land defence exhibition in Paris, the Simox Indirect Tactical Fire Simulator is intended to replicate with significant fidelity and accuracy the environments and engagements that mortar crews could be subjected to. It has been developed with consultation from army mortar officers on how to best prepare platoon commanders, forward observers, loaders, and gunners to maximise their proficiency in the necessary skill sets and correct tactical responses to different scenarios, either as individuals or as teams, from physically separate positions.

“We worked with experienced mortar officers from different NATO countries,” Expal’s Pablo Alises told *DIB*, before explaining where mortar officers were most interested in development: “Mainly in three aspects: one, training the complete mortar team and teaching them to operate together from physically separate positions. Second, to be able to use their own communications equipment; and lastly, to be able to evaluate the training results.”

To achieve the first of these, the Simox system comes with a range

of pre-designed scenarios for gauging and practicing officers’ reactions and executions in varying combat situations. With nearly all key phases of battle capable of being artificially re-created as well as realistic ballistic trajectory of ammunition including circular error probability (CEP), army chiefs can test the full range of required mortar crew tactics for maximum readiness.

Other adjustable variables for Simox’s scenarios include exercise selection, terrain selection, weather patterns, and the artificial intelligence of simulated enemy combatants. The resulting environment and scenario is displayed in high-definition on the trainees’ video interface(s), with real time cameras and supervision from instructors, who may also interact with subjects for hands-on education.

For further immersion and practicality of training, the full Simox suite comes with authentic replicas of mortar weaponry, laser range finders, ammunition - including high explosive, smoke

and illuminating rounds - and ammunition charges. All of these replicas are integrated and brought together with Expal’s Techfire Battle Management System, which consists of a ruggedized tablet computer interface for mortars and artillery guns, fully integrated from the sensor to the weapon. The platform facilitates and automates all tasks related to direct or indirect fire, including those of single gun or of several in a unit, allowing for greater precision and control over supporting fire processes.

As per the company’s consultation with NATO officers, the further requirements of individual soldiers can be evaluated through the Simox After Action Review system. Simulation data is stored, and trainees’ actions - including instantaneous reactions - are monitored, recorded and evaluated. Thanks to these aspects of the system and software, specific training programmes can be tailored to each learner’s weaknesses, as these are identified and informed during performance debriefs following each session in the simulator space.



Expal debuts mortar training simulator.
Source: Expal

U.S. Army seeks enhanced radio encryption T. Magill

A request for information has been issued by the U.S. Army's Program Executive Office for Command, Control and Communications – Tactical (PEO C3T) for input on upgrading the cryptographic hardware and software in its radios under the Embedded Cryptographic Modernization Initiative (ECMI).

Increased security for battlefield communications is seen as critical, particularly with prospects of a more contested battlespace in

future engagements. Contracting work would require engineering, software and hardware development, and testing and evaluation, among other tasks.

In 2011, the Joint Chiefs of Staff issued an instruction that requires voice communications transmitting controlled unclassified information to be protected by approved forms of encryption, which are in need of upgrading to maintain information superiority. At the same time, the radio equipment must meet the

requisite levels of functionality, durability, and all other capabilities.

Various radio families are included in the RFI for upgrade, including SINCGARS, UHF SATCOM, and Software Defined Radio (SDR), with the Army expecting to address all within the same bid.

Interested parties must respond to the RFI by 2 August.



*A future contested battlespace would demand increased radio security.
Source: US Army*

France receives first MMP anti-tank missile systems in 2017

Victor M.S. Barreira

The French Army will take possession of the first MMP (Missile Moyenne Portée) lightweight and compact multi-purpose medium range anti-tank weapon systems from early 2017. Initially 1550 missiles and 225 digitised firing posts will be received from 2017. The whole programme oversees a total of 2850 missiles and 400 launchers.

Work associated with the serial production of the first batch is currently being held. The firing qualification of the 5th generation fire-and-forget and man-in-the-loop missile is currently being carried out by MBDA, DGA and the Army's Technical Section (Section Technique de l'Armée de Terre, or STAT) with completion planned for the end of summer. Development firings were carried out in 2014 and 2015.

The MMP incorporates fire-and-forget (offering lock-on before launch and lock-on after launch firing modes) with man-in-the-loop capability (to avoid fratricide firing and reduce collateral damage)

and is capable of defeating direct and non-line-of-sight targets such as infrastructure, personnel, light armored vehicles and trucks, overprotected MBTs and target with or without infrared signature. It offers confined space firing capability with no recoil, no back blast, smokeless propellant, and reduced signature for discretion and confidence.

Work associated with the serial production of the first batch is currently being held.

Along with a dismounted infantry version for both France and export, the MMP system is available in the 250 kg IMPACT light remote turret configuration with two launchers;

in side-mounted single launchers for turrets; and installed in MBDA/Rheinmetall Defence MPCV (Multi-Purpose Combat Vehicle) remote station featuring two twin-launchers coupled to electro-optical payload and 12.7 mm machine gun. The dismounted infantry configuration can also be mounted on the top of vehicle.

In France, the man-portable configuration (offering prone and seated firing positions) is to gradually replace existing MILAN and Javelin missiles within the French Army's infantry and special operations forces. A vehicle-mounted configuration will fit the Nexter T40M modular protected turret aimed for 248 Jaguar 6x6 armoured reconnaissance and combat armored vehicles to be received between 2020-2032. This configuration comprises a retractable pod made by Nexter armed with two ready-to-fire missiles, with two spare ammunition also available.



France has so far ordered 1550 MMP missiles and 225 firing units.
Source: MBDA ©Laurent Guichardon

French Army creates command for Special Forces Victor M.S. Barreira

The French Army announced June 23 the creation in Pau, South of France of the Land Special Operations Command, the COM FST (Commandement des Forces Spéciales Terre). It replaces the Land Special Operations Brigade, the Brigade des Forces Spéciales Terre (BFST) as part of the Army's "Au Contact" strategic organisation model established in May 2015. The COM FST is composed of 2500 personnel.

The COM FST is comprised of existing units such as the 4th

Special Forces Helicopter Regiment (4e Régiment d'Hélicoptères des Forces Spéciales, 4e RHFS); the 1st Marine Infantry Parachute Regiment (1er Régiment de Parachutistes d'Infanterie de Marine, 1er RPIMa); the 13th Parachute Dragoon Regiment (13e Régiment de Dragons Parachutistes, 13e RDP); and the Special Operations Support Grouping (Groupement d'Appui aux Opérations spéciales, GAOS).

To provide command and control capability, the force is supported

by its High-Staff module; the Command and Signals Company (Compagnie de Commandement et de Transmissions, CCTFS); and the Special Forces Centre Arès.

The COM FST integrates the French Armed Forces' Special Operations Command, the Commandement des Opérations Spéciales (COS) that include Special Forces units from the Army, Air Force and Navy.



Source: Kalie Frantz.

Rheinmetall unveils Lynx IFV T. Magill

At this year's Eurosatory event, Rheinmetall presented its new Lynx infantry fighting vehicle to the international public for the first time. Described as 'agile, hard-hitting and highly protected', the state-of-the-art tracked armoured vehicle is designed for every engagement from peace enforcement to high-intensity combat.

Ben Hudson, Head of Rheinmetall's Vehicle Systems Division, said "Lynx is an advanced new modular family of vehicles that offers our customers the highest levels of survivability, mobility, lethality and capacity while utilising proven technologies to deliver a compelling value proposition for our global customers. Lynx delivers the capabilities that will allow our customers to fight, survive and win on the battlefields of today and tomorrow."

The company is characterising

the IFV with four core capabilities: firepower, force protection, situational awareness and mobility.

Lynx features a Rheinmetall LANCE turret armed with a stabilised, externally powered, airburst-capable automatic cannon (either 30mm or 35mm). This enables the vehicle to effectively engage targets with high precision at ranges of up to 3,000 metres – even on the move. Lynx can also be equipped with an antitank guided missile launcher and a secondary weapon station linked to the main optics (main sensor slaved armament). Not only does Lynx have hunter-killer capability, it can operate in killer-killer mode, since the commander and gunner can observe and engage targets independently of each other.

With the diesel engine mounted in the forward section and a modular armour concept, the vehicle architecture offers a high degree of protection. The vehicle's

ballistic armour shields Lynx from antitank weapons, medium-calibre ammunition, artillery shrapnel, IEDs and bomblets. In addition, a spall liner in the vehicle interior protects the entire crew. Mine and IED protection packages, decoupled seats and the optional hard kill Active Defence System (ADS) have been added to significantly boost survivability.

For enhanced situational awareness, the commander and gunner both have access to the Stabilized Electro Optical Sight System/SEOSS, a digital TV - IR optical system with an integrated laser range finder and fire control computer. In the fighting compartment, displays provide the crew with a seamless 360° panoramic view. Rheinmetall's Situational Awareness System (SAS), featuring automatic target detection and tracking, enhances the hunter-killer capability and minimises crew reaction time. ➔



Lynx is being characterised by four core capabilities: firepower, force protection, SA and mobility.
Source: Rheinmetall

Emerging threats can be swiftly engaged with Lynx's main or secondary armament. Laser warning sensors and the Acoustic Sniper Locating System (ASLS) likewise form part of the sensor suite. A combat management system and intercom for tactical communication round out the array of on-board equipment.

Owing to the manned turret, the commander can still lead from the hatch. The gunner and driver each have hatches, while two soldiers in the rear of the fighting compartment can also observe the area around the vehicle from an open hatch.

Meanwhile, Lynx features a strong power-to-weight ratio and can handle gradients of up to 60 degrees and lateral inclines of more than 30 degrees. It can cross ditches up to 2.5 metres wide, ford bodies of water up to 1.50m deep, and climb over one-metre high obstacles. The vehicle can run on either rubber or light metal tracks.

Rheinmetall is also touting the versatility of Lynx, stating that the vehicle comes in two versions: the KF31 and KF41. The former was on display at Eurosatory, weighing in at up to 38 tonnes and capable of seating 3+6 soldiers. Lynx KF41 is slightly larger and can carry two extra crew.

Both vehicle classes – Lynx KF31 and Lynx KF41 – can be configured for other roles include a command & control, an armoured reconnaissance, repair & recovery and an ambulance.

A high degree of commonality in parts and components is another prominent feature of the Lynx family of vehicles. This is to simplify logistic support and is said to have a positive impact on training. Furthermore, customised service support is available worldwide – ranging from training and logistics to in-theatre repairs and technology transfer.

Turkey awards the acquisition of anti-tank carriers Victor M.S. Barreira

The Turkish Ministry of Defence's armament procurement organisation, the Savunma Sanayii Müstesarlığı (SSM) has awarded FNSS Savunma Sistemleri (a joint venture of Turkish conglomerate Nurol Holding and BAE Systems) a contract for the purchase of 260 self-propelled anti-tank systems. The contract will meet the requirements of the anti-tank vehicle project (Silah Tasiyıcı Araç) for the Turkish Land Forces Command (TLFC). FNSS Savunma Sistemleri was selected over Otokar Otomotiv ve Savunma Sanayi.

Under the contract signed on 27 June, all design, development, and prototype qualification is to be completed in 2018. Serial production will then begin, with all 180 tracked and 76 wheeled armoured vehicles to be delivered to TLFC by 2020. The tracked variant will be based on the company's Kaplan-20 platform, while the wheeled system will use the Pars

4x4 vehicle as the base carrier.

Standard equipment on both vehicles include communications, amphibious kits, smoke grenade launchers, diesel engine, automatic transmission, battlefield management system, mine and ballistic protection kit, day/night sights, all-around cameras, electronic open architecture and navigation kit.

Both the tracked and wheeled vehicles will be fitted with a common remote-controlled weapon station carrying four ready-to-fire Roketsan OMTAS (Orta Menzilli TANKsavar Silah) anti-tank guided missiles and a 7.62 mm machine gun for self-protection. The weapon station also will include electro-optical payload for guidance of the all-weather medium-range missile. It is believed that the local state-controlled company Aselsan will play a role in the weapon station development.

The 35 kg OMTAS missile feature seeker with thermal and TV camera, and insensitive tandem warhead. It has a 4 km maximum range and can be used in fire-and-forget and fire-update modes.

The Pars 4x4 and Kaplan-20 vehicles were unveiled at IDEF 2015 international defence exhibition held 5-8 May in Istanbul. The first was seen equipped with Aselsan SARP (Stabilised Advanced Remote weapon Platform) remote controlled-weapon station armed with 12.7 mm machine gun, while the second was presented in the infantry fighting version with the company's Teber 30 remote-controlled turret armed with 30 mm Orbital ATK Mk 44 Bushmaster automatic cannon and 7.62 mm coaxial machine gun coupled to Aselsan TAKS and L-3 Wescam MX-RSTA electro-optical payloads and Metravib PILAR V acoustic gunshot detection sensor.

France develops a new 6x6 combat vehicle for delivery from 2020

Victor M.S. Barreira

The French Army is to receive the Jaguar 6x6 armoured reconnaissance and combat vehicles by the end of 2020. In total, 110 vehicles will be inducted through 2025 as part of Step One of the SCORPION (Synergie du Contact Renforcé par la Polyvalence et l'Infovalorisation) modernisation programme, and the remaining units during Step Two with deliveries to be completed in 2032. Development and production of the vehicle was awarded in December 2014 by French armament procurement arm, the Direction Générale de l'Armement (DGA) to a temporary consortium formed by Nexter, Renault Trucks Defense and Thales.

After the prototypes are completed and serial production begun, the fleet will gradually replace AMX-10RCR, ERC-90D Sagaie and VAB MÉPHISTO wheeled armoured vehicles within the Army's combined arms battlegroups, the Groupements Tactiques Interarmes (GTIA). The last vehicle

is scheduled to be delivered in 2032. The first Jaguar-equipped deployable battlegroup is scheduled to integrate its first SCORPION-equipped brigade in 2023.

The main system of the vehicle is the T40M two-man lightweight modular protected compact stealth turret being developed by Nexter in cooperation with other suppliers, the DGA and the Army's Technical Section, the STAT (Section Technique de l'Armée de Terre). The turret is outfitted with the CTA International CTAS (Cased Telescoped Armament System) 40 mm weapon system; one retractable missile launching pod developed by Nexter and loaded with two MBDA MMP (Missile Moyenne Portée) medium-range anti-tank guided missiles, and two spare missiles stored; remote-controlled weapon station with 7.62 mm machine gun; automatic weather station; communications antennas; antenna of Thales BARAGE improvised explosive device (IED)

inhibitor; Metravib PILAR V acoustic gunshot detection sensor; Thales Antares 360° local situational awareness and laser warning system that provides multi-threat detection and recognition; eight Nexter Galix grenade launchers; digital multifunction screens for commander and gunner; provisions for communications; and digital periscopes.

The turret's fire control suite is comprised of commander's Safran Electronics & Defense Paseo modular advanced stabilised sight integrated to remote weapon station, and direct optical sight; as well as gunner's Paseo sight, and direct optical sight. The vehicle can be fitted with slat armor.

The vehicle operation will be assisted by a maintenance package, and crew training will rely on an embedded 3D simulation system to be developed and purchased under the SEMBA (Simulation Embarqué) programme.



The Jaguar 6x6 armoured vehicle with T40M turret.

Source: Nexter

Lithuania receives first self-propelled artillery systems Victor M.S. Barreira

The Lithuanian Army took delivery of two Krauss-Maffei Wegmann PzH 2000 (Panzerhaubitze 2000) 155 mm self-propelled artillery howitzers in late June. The tracked vehicles were shipped from Germany to Lithuania.

The package also included another five vehicles for spare parts and training.

Lithuania purchased 16 artillery systems from the German Army surplus in September 2015 to arm the General Romualdas Giedraitis Artillery Battalion of the Mechanised Infantry Brigade 'Iron Wolf' based in Rukla.

The package also included another

five vehicles for spare parts and training, six Bergepanzer 2 armoured recovery vehicles, 26 M577A2 armoured command post vehicles, spares, training and logistics support. The remaining equipment will be inducted by 2019.

The PzH 2000 include a tracked-chassis mounted turret armed with a 155mm L/52 ordnance of Rheinmetall Defence, fire control computer with ballistic functions, automatic aiming and round loading system, muzzle velocity radar, inertial navigation unit, 7.62mm heavy machine gun, NBC protection kit, climate control equipment, fire suppression system, 76mm smoke grenade launchers, communications, electronics, day/night sight and command and control system. It can be linked to an artillery command, control, communications, computers, and intelligence system (C4I).

The 57 tonne vehicle is also fielded by Germany, Qatar, Croatia, Italy, the Netherlands and Greece.

In an effort to improve its military capability, the service will receive 88 GTK Boxer from ARTEC Consortium (a joint venture between Krauss-Maffei Wegmann and Rheinmetall MAN Military Vehicles). The vehicle was selected in December 2015 and a contract is expected to be placed soon through the organisation for joint armament cooperation, the OCCAR (Organisation Conjointe de Coopération en matière d'Armement). 84 of the vehicle will be fitted out with Elbit Systems UT-30 Mk2 weapon station armed with 30mm Orbital ATK MK 44 Bushmaster automatic cannon and Rafael Advanced Defense Systems Spike-LR anti-tank guided missile, with remaining four vehicles in command post variant.

All 88 vehicles are to be delivered to the 'Iron Wolf' brigade between 2017 and 2019.



The PzH 2000 self-propelled howitzer now arms the Lithuanian Land Forces.

Source: KMW

CENTAURO 2 120 mm Mobile Gun System presented at Eurosatory

Eugenio Po

At Eurosatory the Iveco-Oto Melara Consortium (CIO) unveiled the prototype of the new CENTAURO 2 Mobile Gun System (MGS).

The CENTAURO 2 is not a simple evolution of the previous CENTAURO B-1 currently in service by the armies of Italy and Spain, but is an entirely new development. The new vehicle represents a radical upgrade on all the basic characteristics of an armoured vehicle: firepower, mobility and protection. CENTAURO 2 firepower benefits of the introduction of the 120/45 mm smooth bore high pressure gun with low recoil force and integrated pepper-pot muzzle brake. The gun is capable of firing all latest generation 120mm, NATO latest generation kinetic energy APFSDS (Armour Piercing, Fin Stabilized Discarding Sabot) and MP (Multi-Role) munitions providing a fire power equivalent to that of most modern MBTs (Main Battle Tanks). The turret is equipped with a new a semi-automatic electrical auto-loader with a theoretical a rate of fire of 6 rounds per minute. A

total of 12 rounds are stowed in the turret, 6 in the auto-loader and 6 in a standard rack (other 19 munitions are loaded in the back of the vehicle). The vehicle is equipped with a new generation Fire Control System fully integrated in a state of the art electronic architecture.

Even if the gross weight of the CENTAURO 2 is higher (30 tons vs 27 tons) the mobility of the new vehicle is dramatically improved. While maintaining the 8x8 configuration and H-drive architecture, a new-generation engine, an upgraded transmission, a more powerful braking system with control electronics have been adopted. The engine is a new 8 V 20 litres turbo diesel giving 715 HP power with electronic "common rail" injection system and fully compliant with Euro III regulations.

The armour package is designed to protect against mines and IEDs while the previous CENTAURO B-1 lacks this capacity (it was designed 30 years ago when mines and IEDs were not as dangerous as today). The chassis was

redesigned to fully protect against mines and IEDs, state-of-the-art add-on ballistic packages fitted to the hull ensuring high level protection against kinetic energy and hollow charge projectiles. The same concept applies to the turret, which also has an add-on armour kit. The new CENTAURO 2 is also a network-centric warfare vehicle, fully compliant with Italian army digitisation programmes and systems ensuring maximum situational awareness.

The turret can be fitted with a HITROLE Light RCWS (remote Controlled Weapon Station), that increases flexibility in asymmetric warfare and urban scenarios while ensuring maximum crew protection.

Concerning the status of programme, the vehicle will start testing in July, while an extensive qualification programme will be held in October. The Italian Army has an initial requirement of 74 CENTAURO 2 while the total need is expected to be 150 vehicles.



CENTAURO II MGS at Eurosatory.
Source: Eugenio Po

Poland buys 120 mm self-propelled mortar carriers *Victor M.S. Barreira*

The Polish National Ministry of Defence has signed a contract worth around PLN968 million (\$244m) to acquire 64 M120K Rak 120 mm self-propelled mortar carriers and 32 AWD (Artyleryjski Wóz Dowodzenia) artillery command post vehicles from the local state-controlled firm Huta Stalowa Wola (HSW) for the country's land forces.

The package also includes the involvement of Rosomak who will provide modified 8x8 Kołowy Transporter Opancerzony (KTO) Rosomak armoured chassis for M120K Rak and AWD artillery systems. The contract awarded by the Ministry of Defence's Armament Inspectorate (Inspektorat Uzbrojenia) will be

fulfilled by 2019. Both HSW and Rosomak are controlled by the state-owned firm Polska Grupa Zbrojeniowa (PGZ).

The M120K Rak is comprised of a turret armed with 120mm breech-loaded mortar, pintle-mount for 7.62mm UKM 2000 D machine gun and smoke grenade dischargers, and equipped with computerised fire control system, day/night sight, communications, and navigation fit consisting of inertial navigation system, global positioning system and an odometer.

The artillery units to be equipped with the newly acquired field mortar system will also field 4x4 AWR (Artyleryjski Wóz Rozpoznania) artillery

reconnaissance vehicles based on AMZ-Kutno Zubr light protected vehicle which will be mount a battlefield surveillance radar and a electro-optical sensor; 8x8 AWA (Artyleryjski Wóz Amunicyjny) ammunition resupply vehicles based on the Jelcz P882.D53 high-mobility truck; 6x6 AWRU (Artyleryjski Wóz Remontu Uzbrojenia) mobile workshops based on a Jelcz P662D.35 tactical truck, and support vehicles also based on the same P662D.35 chassis.

The Rak mortar system is also available in a tracked chassis and is designated as M120G Rak.



*Poland buys 120 mm self-propelled mortar carriers.
Source: Shaun Connors*

France details modernisation of Leclerc MBT Victor M.S. Barreira

Nexter Systems is working on the development of an enhanced configuration of the Leclerc main battle tank (MBT) for the French Army. Two prototypes will be completed late 2018 for trials by the French Ministry of Defense armament procurement agency, the Direction Générale de l'Armement (DGA) and French Army Technical Section STAT (Section Technique de l'Armée de Terre). The two prototypes will be followed by an initial serial production modernised vehicle to be delivered in 2020, with the last scheduled to be inducted by the French Army in 2028.

The modernisation is intended to provide the vehicle with additional capability to intervene in urban scenarios, face future threats and deliver increased fire power.

A contract worth approximately \$366m to modernise 200 of the main battle tanks and 18 existing DCL (Dépanneur de Chars Leclerc) armoured recovery vehicles to Leclerc Rénové (XLR) and DCL Rénové (DCLR) standards respectively was awarded on 5 March 2015 by the DGA. France is also considering the feasibility

of modernising additional MBTs. Modernising the current Leclerc simulation systems installed at the Saumur military school is also being considered.

Of the 406 MBTs received since 2007, 346 units are currently in active service. 200 are in service with the 501e Régiment de Chars de Combat in Mourmelon (501e RCC); 1er Régiment de Chasseurs (1er RCh) in Verdun; and the 12e Régiment de Cuirassiers (12e RC) in Olivet. The remaining vehicles are used for different purposes including for training in Mourmelon and Canjuers military training camps.

The modernisation is intended to provide the vehicle with additional capability to intervene in urban scenarios, face future threats and deliver increased fire power.

The upgrade will provide the vehicle with capabilities to integrate SCORPION battle groups, increase its capability to intervene in urban scenarios and high intensity scenarios, deliver improved protection and increased fire power. It also reduces support costs and maintains the vehicle to high standards for MBTs.

The modernised MBT will see the integration of Thales' VSYN-Net (Vetronic System Networking) open vehicle electronic architecture designed to optimise the integration of the vehicles electronic equipment; Atos SICS (Système d'Information du Combat SCORPION) battle management system and associated command and control multi-function digital screens replacing SIT V1 system; Thales CONTACT (Communications Numériques Tactiques et de Théâtre) radio; Thales BARAGE (Brouilleur Actif et Réactif avec

Goniométrie) jammer; new fire control system; Panhard Defense T2 remote controlled weapon station armed with 7.62mm light machine gun replacing the roof-mounted 7.62mm machine gun; mission data multimedia recorder; GPS navigation system to complement existing inertial navigation system; new mine and IEDs (Improvised Explosive grenades) protection kit; slat armor-based ballistic protection kit to counter rocket propelled grenades (RPGs); new man-machine interface for commander and gunner; health usage monitoring system (HUMS); onboard technical e-documentation system; diagnostic test device; and refurbishment of existing main computers.

The existing 120mm 52 caliber F1 smoothbore gun will be modified to allow the fire three-mode shells and new generation armour-piercing fin-stabilized discarding-sabot (APFSDS) ammunition from Nexter Munitions.

The DCLR (Dépanneur de Chars Leclerc) vehicles will include Panhard Defense's T1 remote weapon station armed with 12.7 mm heavy machine gun, and remote controlled towing bar. The vehicle will include new mine protection system but not the slat-armour kit.

The modernisation effort is being run as part of the SCORPION (Synergie du Contact Renforcé par la Polyvalence et l'Infovalorisation) modernisation programme. The SCORPION programme is aimed at renewing major equipment of the Combined Arms Battlegroups (GTIA, or Groupement Tactique InterArmes).



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Conversations on the E-Type Gripen roll-out...

On 18 May, at its site in Linköping, and in front of hundreds of global guests, Saab presented the latest version of its Gripen fighter. The JAS39E's enhancements over the current Gripen C/D can be categorised primarily in terms of survivability, sensors, general systems, payload, communications, performance, range, avionics and human-machine interface sensor-fusion. Gripen E is a larger platform with wider track and more payload, as well as more power/cooling to allow for super-cruise and enhanced sensors. The rollout of the ‘smart fighter’, as it is being called, ends the development phase of this new combat aircraft – considered one of the most modern in the world – and ushers in the start of flight testing. Sweden gets 60, while Brazil is the first export customer with 36 to be delivered from 2019 on. Defence Industry Bulletin's **Georg Mader** attended the ceremonious event to talk with the industrial and military leaders involved in this milestone.



Saab CEO Håkan Buskhe
Source: Georg Mader

at hand the latest capabilities and that we can swiftly adjust to new challenges.

DIB: For a country with the industrial base of Sweden, the success of the Gripen was noteworthy – so far, anyway. What made Saab push for the enhanced E-type; for what you call the ‘smart fighter’?

HB: Nations need modern air-defences to uphold national sovereignty. To maintain that for Sweden in the future was, I think, our leading motivation. But for our nation the costs in relation to other investments in society need to remain reasonable. Therefore, Saab has purposely developed smart design- and production-methods for the Gripen E to both increase capability and to reduce costs. If we had the same development- and running-costs for the Gripen E as some of our competitors, then the Swedish national debt would be much higher and we wouldn't have this rollout today. On the other side of the coin, a new system needs to remain capable for many years to come. There are no compromises to be made. Meanwhile there were lots of new capabilities that can't be built into the current Gripen C/D. It makes no sense being a

“The project is going very well. Hundreds of Brazilians are already here”

shot-down pilot on the end of a parachute, saying: ‘Well, at least it was affordable...!’

DIB: Your main export customer for the new type is of course Brazil. Do you see any dangers to the fate of the contract because of the current inner-political turmoil in Brazil?

HB: No. Deliveries of the 36 aircraft to the FAB [Brazilian Air Force] are due to commence in 2019 and will run through to 2024. The present economic and political crisis in Brazil should have no impact on the Gripen programme. We are watching what is happening there, but that contract is financed by the Swedish government and we are paid in Krona. The project is going very well. Hundreds of Brazilians are already here. I'm therefore not losing sleep over their current inner-political situation. ➡

Håkan Buskhe, CEO Saab

DIB: Håkan, you have rolled-out the latest Gripen after a compact design- and development-period. Congratulations. What does this mean for you and Saab?

Håkan Buskhe: Thank you. The rollout of a new aircraft is a dream for any CEO. I am proud and thankful to be at this position within these times. For Saab overall, I think it is noteworthy to be able to display this milestone today just three years after getting the development-contract in February 2013. It means that we at Saab have been able to show we have



Mats Helgesson, Chief of Swedish Air Force Staff. Source: Georg Mader

Major General Mats Helgesson,
Chief of Swedish Air Force Staff

DIB: Major General, given the increase in Swedish investment into defence – of SEK 10 bn [US\$1.24 bn] until 2020 – is there enough of a share for real improvements to be made for the Flygvapnet? Such as to cover these 60 new Gripen Es?

Maj Gen Helgesson (smiling): Well, what is enough? We have

“JAS-39 QRA scrambles have increased by almost 50 percent since 2012.”

been given more money, which is something we have been asking for a long time. This is very positive, a step in the right direction. But it is not really as much as we think we will or might need. Nevertheless, you are right – recent tensions and developments in and over the Baltic have simply prompted Sweden to improve its defence capabilities. The need for a strong, competitive air force has become increasingly evident – that goes for most politicians. Here we stand in front of the first Gripen E-type, and it's introduction is a vital part of this overarching goal. It will give Sweden a technological edge in the event of an aerial confrontation. From what we have defined, and

from what I know, we can forecast that it will give us the capability to operate in future contested environments with increased range and endurance, better communications, better radar, EW systems and an increased reach of our weapons. But with these fresh funds, we can also upgrade our airbases and improve or renew the ground-based air-defence system.

DIB: You mentioned the tense security situation in the Baltic. Former FMV director Lena Erixsson in 2014 said to me that you all up here had hoped that since 1991, Russia would develop into a 'normal' country – and that these hopes sadly did not materialise. Is this the conclusion you've also resigned to, and this is the view of the Swedish air force – that Russia is once again a threat?

MGH: In some ways, unfortunately, yes. We just have to note that in recent years, Russian leadership has made moves that Sweden can only regard as provocative, including the Russian Air Force's ➔



Is the 'smart fighter' smart enough for tomorrow's threats?
Source: Georg Mader

decision to carry out a mock nuclear-attack against the Stockholm area, during war games in March 2013. In that exercise, Russian bombers and escorts crossed the Gulf of Finland and approached Swedish airspace in a pattern typical for launching such stand-off weapons. We have seen continuous investment in the Russian armed forces over the recent years and also the willingness to use them to achieve or underline political goals. We've observed that both large-scale Russian military exercises and snap exercises have much increased, along with occasional provocative behaviour around our sea and airspace borders. All over, we consider today's Russian exercise pattern similar to what we experienced during the Cold War. Our assessment is that it is a clear trend from the Russian side to regain their military capabilities over the Baltic Sea. But while it is inconceivable that a military conflict in our region would only affect one country, a separate military attack directly targeting

Sweden remains unlikely. Even so, we need to improve our capacity and readiness to meet such new security demands and the technological advances of potential opponents.

DIB: *Capacities like the new Gripen E here...*

MGH: Exactly right. However, this system will take some years to be fully introduced. Another current example of substantial readiness we have done was to increase the number of scrambles with our JAS-39 QRA by almost 50 percent between 2012 and 2013. Subsequently this had to be continued at the same level during the following years.

DIB: *Many say today's new fighters will be the last conventional manned fighters of our generation. Any plans in Sweden beyond the Gripen?*

MGH: As I said, let the E-type come in and settle. In my opinion Gripen A/B was relevant for the defence

of Sweden and while the C/D has performed adequately to today, we needed to produce the -E to remain operationally relevant beyond 2025. The Swedish air force is currently planning for the E-type's IOC [Initial Operational Capability] in 2023 and FOC [Full Operational Capability] in 2027. We plan to operate the system to at least – and most likely beyond – 2040. There has been a parliamentary investigation or assessment about Swedish air defence beyond that year and when we look into the 'crystal ball', we predict future military operations to be executed in a more complex environment. Traditional arenas of air, land and sea tend to blur into each other in a much more overlapping way. Any future combat system – or systems – replacing the JAS39 family must be designed based on a genuine integrated approach. But we do not yet have any dedicated plans for the replacement of the Gripen fleet... ➔



"The new Gripen is a testament to Swedish ingenuity. It is in our DNA and we keep challenging ourselves to improve day-by-day. It has incorporated ground-breaking technological features to prove a point about Swedish innovative thinking. Innovation has always been our goal – in defence but also in many other areas."

**Marcus Wallenberg, Saab Group
Chairman of the Board**



Brigadier José A. Crepaldi, Brazilian Air Force. Source: Georg Mader

Brigadier José A. Crepaldi (FAB), Director of Brazilian Department of Defence Products

DIB: When we spoke last at the International Fighter conference in London [see interview in DIB Issue 5, April 2015], your country's decision on the FX-2 programme for the Gripen E was relatively fresh. What has happened since then for Brazil now that the first one is being rolled out here today?

Brig Crepaldi: Let me first clarify that Saab generally refers to the aircraft behind us as the Gripen E, following the previous -A to -D versions. We Brazilians call it the 'Gripen NG', for 'New Generation'. That has nothing to do with the sole demonstrator Saab calls 'NG' or 39-7. Since we last met, the most important milestone for us has been the acquisition approval from our finance ministry and the financial support granted by the Swedish government and Swedish banks.

DIB: So from what you and the considerable number of your personnel coming here have since learned, Gripen was the right choice for the FX-2 project?

BC: Absolutely, it was the right decision. We already have the third or fourth largest aerospace industry

in the world, with companies like EMBRAER, AKAER Engineering, AEL and INBRA also involved in the Gripen NG design group. For them, we seek the latest defence technologies and what was targeted by the aerospace industry within this process is precisely what has been achieved today. The proposal by Saab and the Swedish government was therefore the one that best met the requirements demanded by Brazil. We seek not only to absorb technology but to be partners in its development. Highly trained people, accompanied by the knowledge transfer process, are providing a new impetus to the development of our scientific and technological complex. This is the most important legacy of this promising project. With the aircraft now having materialised, this proves the success of the MoD and the FAB in order to seek an acquisition which boosts domestic industry, generating growth in technological and scientific sectors. Technologies that Brazil will acquire through this project range from systems integration to the aerodynamics of supersonic aircraft and stealth technology.

DIB: Which would suggest that the path towards Gripen NG has put the FAB on the right track...

BC: Yes, it is on track. We are on time and on budget – which is very, very important. The schedule we had in our contract is very close to reality. The FAB Commander has made it the first priority and we are very confident in NG becoming the backbone of Brazilian fighter aviation in the medium- and long-term. Considered one of the most modern fighters in the world, it really is seen as a watershed platform for the FAB. Gripen NG will represent a major factor in the deterrence of any threat to the sovereignty of our airspace. It will carry out air-defence and QRA missions, as well as aerial reconnaissance.

DIB: Is your country's recent inner political turmoil around the impeachment of President Rousseff endangering this programme in any way?

BC: No, because that programme is a strategic programme for Brazil, regardless of the constitution of the cabinet. It is a programme not for one government, but for the state. Thank God, we have brought this forward on a truly national level...

"It really is seen as a watershed platform for the FAB."

DIB: How many Brazilian personnel are – or will be – here in Sweden, in relation to the NG?

BC: The first 50 arrived last October and by 2021, more than 350 professionals from FAB and Brazilian partner companies will be in Sweden. From just two weeks to several years – which means providing for up to 50 families – they'll be taking part in courses for the FAB as well as on-the-job training for what is part of the embedded technology transfer agreement that cover over 50 technology projects. Some of them will last up to 24 months.

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DIB: *Last time you briefly mentioned the various weapons you were planning to integrate into the NG, in partnership with South Africa. How has this planning matured since late 2014?*

BC: Yes, together with Denel [formerly Kentron] we have developed the A-Darter – the

fifth generation WVR air-to-air missile. With the development phase almost finished, we're now beginning industrialisation and have budgeted this IR-guided missile for our Gripens. Regarding BVR, the Meteor is also integrated for Brazil. It will already be available with the IOC among the first batch delivered to us. Of course the weapons themselves are part of an extra contract with MBDA.

DIB: *Back in late 2014 you were also causing eyebrows to rise when you pointed to a long-term Brazilian number of up to 108 Gripen NGs to become a single-type jet force. Is this goal still on the horizon?*

BC: Well, that famous number of 108 comes from a feasibility study from 2007. This quoted how many aircraft are needed to fulfil all future missions, and they came up with three batches of 36 each. But the Air Force staff is again discussing and analysing the

anticipated future scenarios. While we will receive the Gripens, we had to postpone the modernisation of A-1s [AMX] and F-5s. Therefore the new type would perhaps have to take over the missions sooner than the A-1, for example. At the moment, as the NG takes over, I believe we will discover that the aircraft is very capable. That could easily lead to further alterations regarding the rest of our types planning. There is some flexibility in the shifting scenarios and you have to have the political 'string' embedded, but yes, it is still the overall goal to develop a 'single type' air force in eventually. There could be 100, maybe 80 would be enough, but like you said this is still on or a little bit beyond the horizon... ➔

Comparison of the Gripen-Evolution's technical data (single seater)

	JAS 39C	JAS 39E
Empty weight, kg	app. 5,900	app. 6,300
Internal fuel, kg	app. 2,270	app. 3,350
Max. takeoff weight, kg	14.040	16.540
Ordnance/weapons, kg	5,170 (8 stations)	7,200 (10 stations)
Engine	VOLVO RM12	GE F-414-GE-39E
Thrust dry / AB, KN	54,5 / 80,5	64 / 97,8
Supercruise	No	up to Mach 1.25
Radar	Mechanical	AESA-type
IRST	No	Yes
Cockpit-Displays, cm	3 x 15 x 20	1 x 20 x 50

Source: Georg Mader



Brigadier General Kim Jäämeri.
Source: Georg Mader

Brigadier General Kim Jäämeri,
Finnish Air Force Commander

DIB: Unlike Brazil, Finland is only a potential future customer for Saab's new fighter. How do you assess it, and what are the current and next steps in the Finnish fighter-replacement programme?

Brig Gen Jäämeri: Yes, from what we know so far, the new Gripen seems to be a very capable design. Among others, it is considered a potential replacement for our F-18 Hornets, but I have to remark that this decision process may take up to six years from now. According to current planning, we have to replace the first Hornets in 2025 and to replace the whole fleet by 2030. This means we – the government – should be able to make our type-decision in 2021. This further means we should send out our RFP in 2018. In order to be adequately informed, we have to have collected all information by this year or early next year. So

therefore we've already sent out our RFI.

DIB: To whom was it sent?

BGJ: We released it in April to four nations. Sweden, for this latest Gripen; France, for the Rafale; the United Kingdom, for the Typhoon; and to the USA. We expect the latter to compete with the F-35 and an enhanced Super Hornet. Now we expect to get answers by the end of this year, then we have about a year and a half to prepare for our RFP.

“The whole security environment is undergoing a change – at least compared to what it was five years ago.”

DIB: What's the cost being attributed to this?

BGJ: The MoD has discussed about six to ten billion Euros for the purchase, including training and weapons, and so on. This is still a very rough bracket but hopefully we will be able to narrow this down.

DIB: Added onto that will be the life-cycle costs, of course...

BGJ: Yes, but that's another thing. That is what we will compare once all the information is on the table.

DIB: What is the planned number of jets?

BGJ: Technology in the foreseeable future doesn't seem to go much faster, higher and further than technology today, and future weapons won't hugely expand the battlespace. So if you look at the size of Finland and you want to defend the whole nation, we believe the current fleet of 62 F-18s is the minimum requirement. What we now have to see, according to the information we receive, is whether there is anything new on that basic question. We currently don't know anything that would suggest we can make do with a smaller Finnish Air Force than the one we have today.

DIB: Perhaps fleet size is also being impacted by the current security developments in the Baltic. Does Finland – like Maj. Gen. Helgesson explained – also feel a change, since the events in Ukraine?

BGJ: Ukraine is not the only issue. The whole security environment is undergoing a change – at least compared to what it was five years ago. We have seen a clear increase in military activity in the Baltic, within our neighbourhood. It is not just about the airspace violations we've been seeing since 2014, but a huge increase in various military activities across the whole spectrum.

Commander, US Army Europe: “Europe and its security isn’t what it was 18 months ago – or even six months ago...” George Mader



Lieutenant General Ben Hodges.
Source: Georg Mader

Amid a late February briefing at Vienna’s OSCE (Organisation for Security and Co-operation in Europe)’s High-Level Military Doctrine Seminar, Lieutenant General Ben Hodges, commander of US Army Europe, explained to Defence Industry Bulletin how he perceives the security situation in the OSCE area, the unilateral actions by Russia, and the resulting U.S. operational response.

When asked how Europe’s security policy landscape has changed since 2014, Hodges pointed out that “Europe and its security isn’t what it was 18 months ago, or even six months ago. New threats and challenges seemingly emerge almost every day. Aligned with the principles of the OSCE, in respect for the sovereignty of all states when it comes to the use of force against neighbours and the inviolability of these borders, the US recognises that we need to remain engaged in Europe, to deter and react to military aggression. And there was and is aggression – the ‘peace-dividend’ of the 1990s is vanishing.”

Hodges emphasised that he is referring to Russia, saying:

“As said in my keynote here in Vienna, in 2008 and in 2014 the overwhelmingly agreed practice of collaborating to resolve conflict peacefully was unfortunately set aside when Russia first invaded Georgia, then partly occupied and destabilised Ukraine. Those unilateral, military incursions sent shockwaves of concern throughout Europe, but of course also alerted US leadership.”

The U.S. Army Europe still welcomes Russian inspectors and evaluators at 2016 exercises as per the implementation of the Vienna document.

In response to Ukraine, NATO took a series of actions at the September 2014 Wales Summit to assure commitment to the security of its Allies. Hodges recapped them.

“The alliance has moved forward since that time with a posture that we call ‘strong but balanced’. ‘Strong’ means we have adequate capability to assure our Allies of our ironclad commitment to collective defence under NATO’s Article 5. As a significant augmentation of US efforts to peace and security in Europe and to deter aggression, President Obama announced his 2017 funding request of US\$3.4bn

for the ‘European Reassurance Initiative’ (ERI) – quadrupled against last year’s request. As core of US military doctrine in support of Europe’s security, ERI has five components: Increased rotational presence, additional bilateral and multilateral exercises and training with Allies or partners, enhanced prepositioning of equipment, improved infrastructure readiness to allow for greater responsiveness, and enhanced efforts to build capacity with newer NATO Allies and partners.”

In explaining to *DIB* what is meant by the term ‘balanced’, Hodges explained this as “support to Europe’s security efforts, both in Eastern Europe and along its southern borders, openly and with transparency. We do this by participating in NATO exercises and by invitation in other bilateral and multilateral exercises, from Portugal to Finland and from Greece to Estonia. Unlike those recent, frequent – but unannounced – large-scale Russian ‘snap exercises’, forwarding thousands of troops and many hundreds of vehicles and aircraft right along [Russian/NATO] borders, the U.S. Army Europe still welcomes Russian inspectors and evaluators at 2016 exercises as per the implementation of the Vienna document, all of which are published many months ahead and covered by international media. We did this in August 2015 during multinational airborne-exercise SWIFT RESPONSE in Germany, in Bulgaria during PEACE SENTINEL last November, and at Grafenwöhr on January 19. SWIFT RESPONSE even received a Russian ‘Open Skies’ overflight, as did US Army facilities in Baumholder, Mannheim and Wiesbaden.”



When asked for details on the persistent rotational presence of air, land, and sea forces in Central and Eastern Europe (announced last June), Hodges told us that “this is called the ‘European Activity Set’ (EAS). It means that in order to enhance deterrence, the US will – at invitation and full consent of our Allies – maintain persistent presence of a rotational US armoured brigade in Europe. In addition, to improve overall Allied readiness and interoperability with Allies, we will have all of the vehicles and equipment for one US armoured brigade permanently sited at the host-nation installations of several NATO Allies, including Estonia, Latvia, Lithuania, Poland, Romania, Bulgaria and Germany. This ‘Army Prepositioned Stock’ (APS) is not for rotational use but intended to

reduce force deployment times and enable a rapid response to potential contingencies. On top of that, we will continue to work with various European Allies to improve infrastructure and capacity on airfields, railheads, training centres and ranges.”

The highest ranking US Army commander on the continent wanted to add to that “thousands in the US-administration working in arms control, disarmament and trust-building with the Russians for almost their whole working life, are feeling cheated because today’s leaders in Moscow have chosen to ignore the Helsinki principles, such as respect for the territorial integrity of states and their borders. The subsequent use of force in Ukraine has resulted in over 9,000 deaths and over one

million displaced. And if you look back for the first six weeks of 2016, the OSCE’s SMM observers were counting 12 violations by the Ukrainians versus 73 by the Russian-backed separatists. Thus the later were responsible for between 85 and 95 percent of the weapons violations over that period. Alongside flat denials that those ‘little green men’ in Crimea were Russian soldiers and that their airstrikes in Syria – to my concern, using munitions everybody knows causes substantial civilian casualties – are targeting nearly everybody, we get multimillion propaganda efforts in the four D’s: Dismiss, Distort, Distract, and Dismay.”



Source: DoD

“A submerged modern diesel-electric submarine is very hard to detect – and lethal...” George Mader



Vice Admiral James Foggo.
Source: Georg Mader

At the OSCE briefing Vice Admiral James Foggo, Commander US Navy 6th Fleet and Commander, US Naval Forces Europe, said that “the rapid changes in the threats we face. Few would have predicted that terrorists and their sympathisers threaten societies by using all means, including social media. The conflict with Daesh in Iraq, Syria and Libya creates and contributes to a mass migration crisis that not only is a humanitarian challenge but also real security concerns for Europe – including a naval concern.”

Russia is using force to accomplish its goals, thus planting the seeds of renewed tension and militarisation into the region.

In the later respect Foggo pointed to the recently initiated NATO- and FRONTEX-mission against human-traffickers organising the flow of migrants in the Aegean and explains that “while the EU has so far not asked for 6th fleet ships for that FRONTEX-operation, we provide intelligence-support, as we bilaterally do for their operations off North Africa, by the way. But that EUNAVFOR-MED is a different command, led by Adm Enrico Credendino or Operation SOPHIA.”

In a wider security context, the VAdm remarked that “as a regional commander, I also have to add that Russia – originally a key stakeholder in European Security – disregards international principles of sovereignty and is using force to accomplish its goals, thus planting the seeds of renewed tension and militarisation into the region. This was unexpected and unfortunate, but such emerging challenges – whether conventional or nuclear – can come from any direction, at any time in the foreseeable future. And these will require military force to deter and if necessary, to defend.”

In underlining the presence of naval forces at-sea to do so, Foggo highlighted the last BALTOPS, [Baltic Operations Exercise]: “I had the pleasure to serve as the NATO commander of that flotilla in a front row seat to this ultimately highly-rewarding effort. We’re going to do it again this year with our mid-term planning-conference at Riga. 17 like-minded nations will be sailing together to openly assure security and cooperation in these shared spaces that connect us, particularly in the Baltic. 49 ships, 62 aircraft, 5,600 sailors, airmen and Marines came together, 700 Marines hit the beach in Ravlunda in Sweden and in Ustka, Poland. We had a Russian Air

Force [VKS] ‘welcome committee’ from Kaliningrad, two sorties of aircraft four times, high-speed, low altitude. I encouraged every sailor who recorded their flypasts on an iPhone to put it on the web with the caption ‘Sailors and Marines of BALTOPS 2015 enjoy air show, compliments of the Russian Air Force.’ I wanted them to know we are here, a strong message of solidarity, alliance, unity of command, unity of effort and reassurance to our Baltic partners.”

The Vice Admiral also mentioned participation of 6th fleet activities connected to the Syrian civil war.

“Around the time of the Paris Daesh terrorist attacks, I flew to the French aircraft carrier Charles de Gaulle where USN exchange personnel were conducting flight ops within their air wing. I was very impressed by the total integration of their strike operations over Syria, before joining them into the Arabian Gulf. Now joined, we continue to operate where not everybody operates and we continue to ‘be present’ to see – with our own eyes and sensors – what is going on.”

Regarding any possible ‘deconfliction’ between US and Russian warships in the Mediterranean, such as has been agreed in November for Syrian airspace, Foggo told us that “it is not necessarily the same situation as in the air. In abiding to standard naval rules of behaviour, when we pass Russians with 8,000 ton warships in the night, we exchange signals and ask for identification. We expect the same – and for the most part the Russian sailors react professionally. No problems. And why not? We are not at war with them.” ➡

VAdm Foggo was originally a submariner and therefore *DIB* asked him how the undersea domain contributes to daily operations of 6th fleet, other than escorting carrier groups. He underlined that “[US] subs these days are busier than ever. I won’t tell you numbers, but we deploy subs to the Med every year. They are indispensable in theatre-security collaboration and in collecting valuable ISR for decision-makers. Also in countering the one constant competitor that we have not seen degrade since the

‘non-kinetic third battle of the Atlantic’ – Russian submarines. They have resolved to build a capable, high-end submarine force. You know, when a modern diesel-electric submarine is submerged on batteries, it is very hard to detect – and lethal. Just recently, Russians sailed their second-built Kilo-class from the Northern fleet down into the Eastern Med, and then shooting ‘Kalibr’ land-attack missiles into Syria. Then it went to the Black Sea, where there are now two Kilos and – by our assessment – will become six. We, as an alliance, remain

concerned and vigilant about that. It is important that we hone and modernise our ASW-skills above and under the seas.”

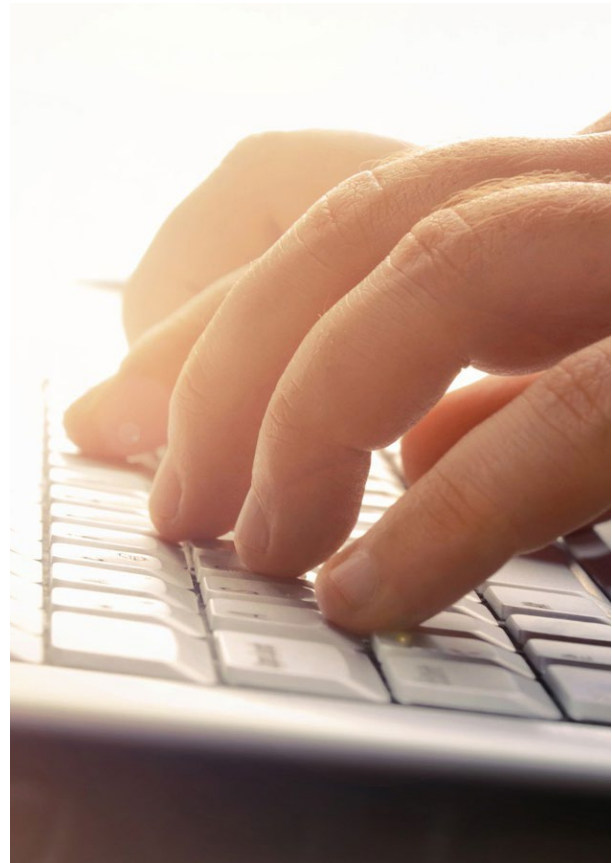
On particular ASW-platforms in his area of command, Foggo points “to the P-3 Orion MPA/ASW aircraft at Sigonella/Sicily, that are earmarked to be replaced by P-8 Poseidons. These are great aircraft and force-multipliers, as you can see in the recent British SDR that foresees nine of them [for acquisition].”



*Caption: P-8 Poseidon MPAs will soon be multiplying over European waters.
Source: USN*

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