

ESD SPOTLIGHT

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REPORT

The fortnightly newsletter on developments in the international defence & security environment

**European
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& Defence**



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MASTHEAD

ESD Spotlight

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Editor-in-Chief: Dr. Peter Bossdorf

Deputy Editor-in-Chief: Henning Bartels

Managing Editors: Dorothee Frank (df)
(newsletter)

and Stephen Barnard (magazine)

Editors: Wilhelm Bocklet (wb), Gerhard
Heiming (gwh), Ulrich Renn (ure)

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Mittler Report Verlag GmbH
Baunscheidtstrasse 11
53113 Bonn, Germany
Phone: +49 228 350087-0
Telefax: +49 228 350087-1
Email: esd.spotlight@mittler-report.de
www.euro-sd.com

Managing Directors: Peter Tamm,
Dr. Peter Bossdorf and Thomas Bantle
The company is located in Bonn
District Court of Bonn – HRB 18658
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Operation Inherent Resolve

The U.S.-led Operation Inherent Resolve still gains ground in their effort to drive ISIL back from their positions in Iraq and Syria, even though there is a slight pause due to weather (summer) conditions. As of July 27, the U.S. and coalition had conducted a total of 14,093 strikes, 9,411 in Iraq and 4,682 in Syria. Of these strikes 10,826 were conducted by the U.S. and 3,267 by the rest of the coalition.

The countries that have participated in the strikes include Australia, Belgium, Canada, Denmark, France, Jordan, The Netherlands, and the UK in Iraq (3,018 strikes); and Australia, Bahrain, Canada, France, Jordan, The Netherlands, Saudi Arabia, Turkey, the UAE and the UK in Syria (249 strikes).

The U.S. is especially trying to force Iraqi soldiers to gain their country back from the terrorists. Over 27,000 Iraqi security forces have already been trained and equipped by the coalition. But still there are around 4,500 U.S. and more than 2,800 coalition soldiers in theatre.

"In Syria, the coalition is providing logistic assistance, advice and a little bit of training to Syrian democratic forces," Jim Garamone, reporter at the U.S. DoD stated. "In Syria, anti-ISIL forces are also making progress. The ISIL stronghold of Manbij is now surrounded and that is cutting the number of foreign fighters that are able to get into Syria and Iraq. Facing the growing coalition are about 20,000 to 27,000 ISIL fighters, officials said, adding that the number of foreign fighters is reduced, but it is hard to assess."

"At the heyday, we think about 2,000 a month were coming in to Syria. We think 200 to 500 are coming in per month now," an official said.



"We have not assessed this since cutting off Manbij."

The fights for Manbij were conducted by the Syrian Arab Coalition (SAC) and supported by coalition strikes, starting in mid July, denying ISIL access to critical supply routes. This was only possible after severe conflict between the SAC forces holding defensive positions and launching offensive operations into the north and south sides of the city, despite multiple ISIL attacks with VBIEDs, armoured vehicles, and large formations of fighters. Additionally over 400 strikes were necessary near Manbij, destroying ISIL heavy weapons, vehicles, fortifications, VBIED facilities, armoured vehicles, technical vehicles, bridges, and caches.

This success leaves Mosul as the ISIL headquarters in Iraq and Raqqa as its headquarters in Syria -- and those two cities are where the largest portions of the ISIL units remain.

But ISIL is not restricted to the Middle East; a regional affiliate exists even in Afghanistan, known as the Islamic State Khorasan Province.

"U.S. and Afghan partnered forces have attacked Daesh and begun to reduce their area of control. This has included attacks by the Taliban against Daesh as well. So, now since Ja-

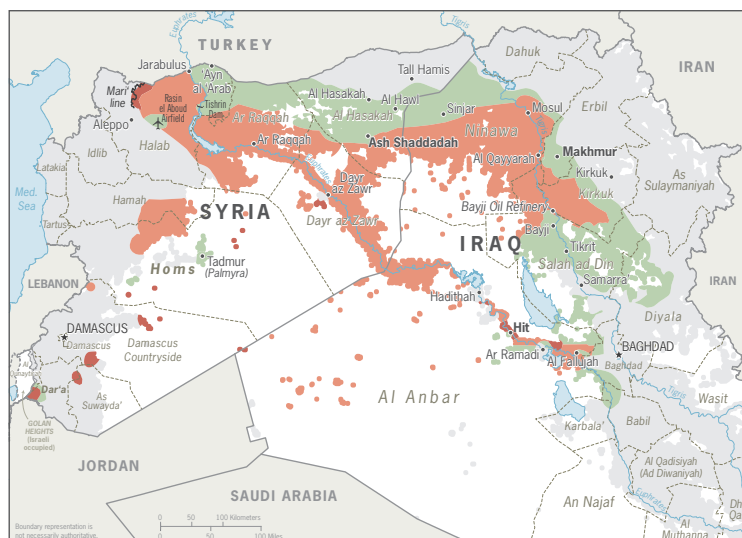
nuary, their area has shrunk to about three or four districts -- parts of three or four districts in southern Nangarhar," General John W. Nicholson, commander of Resolute Support and U.S. Forces Afghanistan, said during a Pentagon press briefing.

"We will continue to stay after Daesh until they are defeated here in Afghanistan," Nicholson continued. "The fight against Daesh is critical. It's nested within a larger global strategy against Islamic State. It, in fact, coincides with ongoing operations in Iraq and Syria. And again, by fighting groups like Daesh and Al Qaida here in Afghanistan, we deny them sanctuary and we inhibit their ability to conduct trans-national attacks from here. But I would like to note that Daesh is only one of nine U.S. designated terrorist organizations here in Afghanistan. Additionally there are three other violent extremist organizations."

Apart from regional battles, like in Afghanistan, the key operation against ISIL

Areas of Influence

- ISIL dominant
- ISIL territorial gain
- ISIL territorial loss
- Non-ISIL populated area
- Sparsely populated or unpopulated
- Administrative boundary



is Operation Inherent Resolve and this is focused on Iraq and Syria. According to the U.S. DoD the next plays in the counter ISIL campaign will be to stabilise Iraq's Anbar province and to generate Iraqi security forces to envelop Mosul.

Additionally the U.S. aims to identify and develop more local forces in Syria that will

isolate and pressure Raqqa. According to their own words, the coalition will therefore "provide more firepower, sustainment and logistical support to our partners to enable them to collapse ISIL's control over Mosul and Raqqa."

www.inherentresolve.mil

Dorothee Frank



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Defence

The Netherlands give NATO tanker transport capability

(df) The Ministry of Defence The Netherlands has notified Parliament of the signing of a Memorandum of Understanding with Luxembourg to proceed with the acquisition of a pooled fleet of Airbus A330 Multi Role Tanker Transport (A330 MRTT) aircraft, and the signing of a contract paving the way for the delivery of two aircraft with options for up to six more when, as expected, other nations join the grouping. In this framework The Netherlands is ready to purchase two Airbus tanker/transport

aircraft with Luxembourg. The aircraft will be NATO property and will be stationed at Eindhoven Air Base for pooling and sharing. The purchase of the MRTT A330 type aircraft is an important contribution in addressing the scarce tanker and transport capability of the European Union in particular. In addition to refuelling aircraft and strategic transports, MRTT aircraft can also be used for carrying out medical evacuations, if necessary in intensive care units. The fleet will be NATO property. The European Defence Agency (EDA) and the European materiel organisation OCCAR are closely involved in the purchase of the aircraft, on behalf on the NATO Support & Procurement Agency (NSPA). Luxembourg and the Netherlands will have exclusive user rights. In addition to the purchase, the MRTT project also covers maintenance and operational deployment. The Netherlands is the lead nation in this multinational collaboration project. Belgium, Germany, Nor-

way and Poland intend to join the agreement at a later date.

Costs and personnel will be allocated on the basis of the number of flying hours that each country needs. The expected life span of the fleet is 30 years and the investment budget is between €250 million and €1 billion.

In service with the air forces of Australia, UAE, Saudi Arabia and UK, the A330 Multi Role Tanker Transport (MRTT) provides military strategic air transport as well as air-to-air refuelling capabilities. It is based on the latest medium to long range, twin-aisle, commercial aircraft of the Airbus fly-by-wire family, the A330. More than 1,600 of these have been sold to over 100 customers and nearly 1,300 are operated all around the globe, ensuring easy support and many years of commercial life ahead.

www.nato.int

www.defensie.nl

www.airbusdefenceandspace.com



(Photo: Airbus Defence & Space)

European test and evaluation network

The European Defence Agency (EDA) has taken the initiative to promote more systematic technical testing of CSDP equipment by Member States' Test Centres and to set up an EU-wide Test and Evaluation Network, the Defence Test and Evaluation Base (DTEB). One of the areas where Testing & Evaluation (T&E) is particularly crucial is that of Electromagnetic Effects (EME). Indeed, it is not unusual that commercially acquired electronic devices used by Armed Forces generate adverse interferences with its own military equipment or with that used by partner troops in joint missions. In order to mitigate the risks of fatal interference, several European nations

have developed a network of military test centres, specialised in Electromagnetic Effects, which joined the EDA's Defence Test and Evaluation Base (DTEB) to examine, amongst others, the hazardous impact of civil equipment on military operations and vice versa.

This EU Network of military EME Test Centres (ENTER) conducts joint tests, exchanges results and works on harmonized standards towards enhanced interoperability of multinational forces.

After having carried out a first, more general inter-laboratory comparison test (so-called 'Round Robin Testing'), the ENTER group has now decided to launch a follow-up test in autumn 2016 which will entirely focus on current and future Elec-

tromagnetic Effects (EME) concerns. The preparatory meeting for this test round will take place end of September at the EDA in Brussels.

National test centres from six EDA member States (Belgium, Czech Republic, Germany, The Netherlands, Sweden and Spain as lead nation) will participate in this joint test event.

The objective is to evaluate a series of test methods and procedures in order to verify their accuracy and comparability. This is of great importance to national test centres because if it can be concluded that different methods and procedures applied by Member States' testers are of identical quality and that they lead to the same results, then it will be possible for national test centres to mutually recognize their test results - which means substantial savings of time and resources.

www.eda.europa.eu



Technology

F-35A Lightning II declared combat ready

(df) The F-35A Lightning II fifth-generation fighter aircraft was declared "combat ready" by Air Force General Hawk Carlisle, commander of the U.S. Air Combat Command. The F-35A is the latest addition to the fleet of deployable and fifth-generation aircraft adding that the aircraft provides air superiority, interdiction, suppression of enemy air defences and close-air support as well as great command and control functions through fused sensors.

It will also provide pilots with superior situational awareness of the battlespace that will be more extensive than any



(Photo: U.S. Air Force)

single-seat platform in existence, officials said.

Carlisle lauded the aircraft's performance, noting that the aircraft had met all key criteria for reaching initial operational capability: airmen trained, manned and equipped to conduct basic close air support, interdiction and limited suppression/destruction

of enemy air defenses in a contested environment with an operational squadron of 12-24 aircraft; the ability to deploy and conduct operational missions using program of record weapons and missions systems; and having all necessary logistics and operational elements in place.

"I am proud to announce this powerful new weapons system has achieved initial combat capability," Carlisle said. "The F-35A will be the most dominant aircraft in our inventory because it can go where our legacy aircraft cannot and provide the capabilities our commanders need on the modern battlefield."

www.defense.gov

BAE Systems/Patria and Rheinmetall in for Land 400

(df) BAE Systems Australia and Land 400 bid partner Patria have been confirmed as one of two tenders selected to take part in the 12-month Risk Mitigation Activity for the Australian Army's Land 400 Phase 2 combat reconnaissance vehicle programme. The other confirmed bidder is Rheinmetall with the Boxer CRV (Combat Reconnaissance Vehicle). The contract will be

worth at least €2 billion with an option of up to €7 billion.

BAE Systems Australia has offered the AMV35 – Patria's modern highly protected military-off-the-shelf Armoured Modular Vehicle integrated with the combat-proven E35 turret from BAE Systems Hägglunds. "Our three test vehicles are built and ready for the Australian Defence Force's test and evaluation programme," BAE Systems Australia Chief Executive Glynn Phillips said. "Our team is now focussed on maturing our in-country manufacturing plans to ensure we provide the Australian Army with the best capability while also delivering the maximum economic benefit across our Australian supply chains."

The other vehicle, the Boxer 8X8 CRV, is fitted with the in-service LANCE turret and

a growth path that includes a 35mm main gun and the Northrop Grumman command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) architecture. "Boxer is combat proven and offers the highest levels of survivability and mobility that, when combined with the in-service Lance turret, will deliver the capabilities that allow Army to fight, survive and win on the battlefields of today and tomorrow," said Ben Hudson, Head of Rheinmetall's Vehicle Systems Division.

The evaluation phase will last about 12 months, after which the Australian MoD will select the new Vehicle for their land forces.

www.baesystems.com

www.boxercrv.com.au

www.patria.fi



(Photo: BAE Systems)

Standard Missile-3 Block IB ordered by the U.S.

(df) The U.S. Missile Defense Agency exercised a €467 million contract option with to produce, test and deliver 47 Standard Missile-3 (SM-3) Block IB interceptors for operational testing and deployment. This is the fiscal year 2016 option under the €2.1 billion

contract for Standard Missiles awarded to the company in 2015. The guided missiles are used by the U.S. Navy to provide regional defense against short-to-intermediate-range ballistic missile threats.

The key capability of SM-3 is to destroy incoming ballistic missile threats in space using nothing more than sheer impact. It is

the core effector of the European ballistic missile defence shield built up by NATO and mainly paid for by the USA. SM-3 Block IB is deployed at sea, and was deployed ashore in Romania in late 2015. SM-3 Block IIA is also on track for deployment at sea, and ashore in 2018 in Poland.

www.raytheon.com

Miniature Hit-to-Kill missile

(df) Lockheed Martin's Miniature Hit-to-Kill (MHTK) missile was successfully launched in an engineering demonstration at White Sands Missile Range, New Mexico. The demonstration was part of the U.S. Army's Aviation and Missile Research Development and Engineering Center's (AMRDEC) Extended Area Protection and Survivability (EAPS) programme.

The MHTK interceptor is less than 72 cm in length and weighs about 2.2 kg at launch. It is designed to be small in size while re-

taining the range and lethality desired in a counter-RAM solution, with the reliability of other Lockheed Martin Hit-to-Kill interceptors. The MHTK uses Hit-to-Kill technology, which destroys threats through kinetic energy in body-to-body contact.

The flight in this second test demonstrated the agility and aerodynamic capability of the MHTK missile,



which is designed to defeat rocket, artillery and mortar (RAM) targets at ranges exceeding those of current and interim systems.

This small missile complements other Lockheed Martin Hit-to-Kill interceptors by delivering close-range lethality for a layered defense system.

www.lockheedmartin.com

Brimstone fired from an AH-64E Apache

(df) MBDA and Boeing have successfully completed a series of physical trials and firings of Brimstone on the AH-64E attack helicopter to confirm the feasibility of integrating the missile with the United Kingdom's future Apache AH-64E fleet.

These firings demonstrated the capability of the weapon to guide using Brimstone's Semi-Active Laser (SAL), Dual Mode SAL/millimetric wave (mmW) and fully autonomous mmW guidance modes. The weapon releases were from hovering, moving and manoeuvring/banking scenarios against Main Battle Tanks and Pickup Truck targets. All of the firings utilised fully telemetered missiles instead of those with a warhead to confirm performance.

(Photo: MBDA)



The UK MoD's trials objectives were met with missile telemetry being gathered, confirming that the weapons separated with active fin control off the rails, with no tip-off concerns. The data collected from these missile firings will be used to enable future optimisation of Brimstone for the AH-64E capability.

www.mbda-systems.com

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www.future-forces-forum.org



New Order from UAE for South African defence Company Denel

(wb) South African defence Company Denel has announced a new order of 24 RG31

4x4 armoured vehicle 120mm mortar carrier (also called Agrab) for United Arab Emirates(UAE). A total of 73 vehicles have already been delivered to the UAE.

According to a contract between the UAE-based International Golden Group (IGG) and BAE Land Systems on December 2011, the Agrab RG31 mortar carrier was built under license by the company IGG.

The latest version of the RG31 mortar carrier will be fitted with additional customised equipment by IGG before the delivery

to the UAE's armed forces. The RG31 is 4x4 mine protected armoured vehicle designed and manufactured by the Company BAE Systems.

The Agrab mortar carrier is fitted with a ST Kinetics 120 mm Super Rapid Advanced Mortar System (SRAMS) and an ammunition-handling system that can deliver 46 mortar rounds. It is designed for a three-man crew with the ability to deploy and deliver firepower in less than one minute.

www.denel.co.za



(Photo: Denel)

NATO invests €3 billion in cyber

(df) The NATO Communication and Information (NCI) Agency announced business opportunities in cyber, air and missile defence as well as advanced software, worth €3 billion. This comes in parallel to decisions taken at the Warsaw Summit to strengthen the Alliance's deterrence and defence. The investments are planned between now and 2019 with first contracts already been put out for tender. These will include: a major contract for NATO satellite communications worth €1.5 billion, the procurement of advanced software and a further strengthening of NATO's air de-

fences. Other contracts for future programmes will include cyber defence, command and control for complex operations and the Response Force.

"The ingenuity and creativity of our private sector has always been a source of strength for NATO," said Koen Gijsbers, NCI Agency General Manager. "We, as an Alliance, have been able to maintain our technological edge over our adversaries for 67 years because the innovative capacity of our private sector is unparalleled. Today's technological change is driven by Industry and as NATO we are engaging Industry early on to ensure we tap into that creativity. NATO will

only be resilient if we embrace and can do continuous, rapid innovation." He added: "The contracts we're announcing focus on one of the core tasks of the Alliance, to connect and link national forces and capabilities into a whole that is greater than the sum of its parts. By linking and connecting individual national capabilities NATO can do more than individual countries could do themselves."

From September 7-8, 2016, over 1,500 Industry representatives will meet with NATO officials and decision-makers at NIAS, NATO's annual cyber conference.

www.ncia.nato.int

U.S. orders Carl-Gustaf

(df) Saab has received an ammunition order from the US Department of Defense (DoD) for the Carl-Gustaf man-portable weapon system for €4.8 million. The system is known in the U.S. as M3 MAAWS (Multi-role, Anti-armor Anti-personnel



Weapon System). The order comes under the terms of Saab's framework contract announced with DoD in August 2014 for the 84-mm recoilless rifle system.

The Carl-Gustaf has been regularly modernised and enhanced to meet users' changing needs. The latest

version, the Carl-Gustaf M4 (called M3E1 in the U.S.), reduces the weight from 10 kg to less than 7 kg.

Employing a wide range of ammunition types, the Carl-Gustaf system allows dismounted soldiers to defeat multiple challenges – from neutralising armoured vehicles to clearing obstacles and engaging enemies in buildings.

www.saabgroup.com

Hexacopter with new capabilities

(df) MULTIROTOR service-drone.com announced an important achievement in the development of its unmanned aerial systems (UAS) for the B2B market: the Hexacopter ZX5. The multi-functional drone will now be delivered with a digital HD-video

wireless system and the Sony Alpha 6000, including two lenses. There are a Pancake fixed focus lens and an exchangeable image stabilised zoom lens for video inspections. Further modules, such as a multi-spectral sensor, a thermography system with an extra RGB optic or the full-frame camera Sony

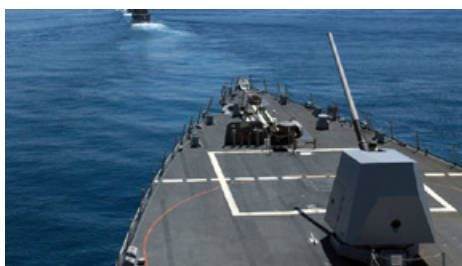
Alpha 7, can be upgraded later. With the current release, ZX5 has been integrated completely into the Trimble software suite, starting with the flight planning software Aerial Imaging and followed by the Trimble Business Center software.

www.service-drone.com

MIFS for the Royal Navy Type 26 Global Combat Ship

(df) BAE Systems will equip the Royal Navy with the gun systems, known as the Maritime Indirect Fires System (MIFS), for the Type 26 Global Combat Ship. The contract is worth €219 million with deliveries expected from 2020.

Under the contract, BAE Systems will manufacture three MIFS Integrated Gunner Systems (IGS) and one trainer system for the Royal Navy. The MIFS IGS includes the 5-inch, 62-caliber Mk 45 Mod 4 Naval Gun System, along with an automated ammunition handling system, gun fire control system, and qualified ammunition. The contract includes an option for five addi-



(Photo: BAE Systems)

tional systems for the remainder of the UK Royal Navy's Type 26 fleet.

The Mk 45 is in service with the U.S. Navy and ten other allied nations. More than 240 Mk 45 guns have been delivered into service globally.

"Our growing defence budget means we can invest in a cutting edge weapon system for the Royal Navy's next generation Global Combat Ship at the best value for

taxpayers," said Harriett Baldwin MP, UK Minister for Defence Procurement.

The UK Government committed to buy eight of the advanced Type 26 Global Combat Ships in its 2015 Strategic Defence and Security Review, which will in time replace the anti-submarine warfare Type 23 frigates. Type 26 will be globally deployable and capable of undertaking a wide range of roles from high intensity warfare to humanitarian assistance, either operating independently or as part of a task group. The ship has been designed with an acoustically quiet hull and with flexibility in the design to allow Type 26 to be upgraded as new technology develops.

www.baesystems.com

U.S. Navy tests V-22 Osprey

In preparation for replacing the Navy's C-2A Greyhound carrier onboard delivery (COD) platform with the future Navy variant CMV-22B Osprey, Naval Air Forces conducted a Fleet Battle Experiment from July 22 through August 4. The results, even though they are still evaluated, were quite promising.

"Deliberate planning is required to safely and successfully integrate the CMV-22B into our future air wings," said Vice Admiral Mike Shoemaker, Commander, Naval Air Forces. "The analysis and conclusions from this experiment will inform future concept-of-operations development."

The experiment explored, analyzed, and documented the characteristics of operating a detachment of MV-22s as the COD platform for the carrier strike group.

The Marine Corps is providing aircraft, aircrews and maintainers from Marine Operational Test and Evaluation Squadron 1 (VMX-1) and Marine Helicopter Squadron 1 (HMX-1) to enable the experiment by replicating the future intended Navy CMV-22B capabilities when delivered.

Future CMV-22B detachments will recapitalize and build upon the flexibility, mobility, responsiveness, and independence of today's C-2A Greyhound detachments. The V-22 is an effective, flexible, and safe



(Photo: U.S. Navy)

aircraft with the proven capability to provide aerial logistics support in the maritime environment. It has proven its capabilities in theater in Afghanistan and at several NATO operations and exercises.

www.navy.mil

Monitor the health of a ship

(df) New technology developed and funded by BAE Systems is set to transform the future of warship support by flagging potential faults in real time, the company announced. An analytical tool known as System Information Exploitation, or SIE, is the core element with being capable of processing so called big data – meaning tens of thousands of equipment data samples per second. The information is securely sent for immediate assessment and diagnosis from the ship to shore.

Intelligent monitoring of big data allows BAE Systems and the Royal Navy crew to monitor the health of a ship's equipment and allows them to prepare for the ship's return to port, saving both time and money. Therefore BAE Systems expects to install SIE across all six Type 45 Destroyers in 2016 and 2017 and is working with the UK's Ministry of Defence to integrate the new technology on future platforms.

The system has been trialled successfully on board several of the Royal Navy's Type 45 destroyers and is now due to be instal-



(Graphic: BAE Systems)

led on HMS Daring as part of the roll-out programme. It is the first time that any navy in the world has installed this technology on a warship.

www.baesystems.com

Australian Defence Force PC-21 Completes First Flight

(wb) Pilatus Aircraft Ltd announced that the first of 49 PC-21 aircraft destined for the Australian Defence Force has successfully completed its initial production test flight at the factory in Stans, Switzerland. The flight took place only seven months after contract signature. Under a contract signed in December 2015 aimed at harmonising Australian Defence Force flight training across all three services – Army, Navy and Air Force – Pilatus will deliver a



(Photo: Pilatus Aircraft)

total of 49 PC-21 which will operate from four Royal Australian Air Force bases. Pilatus will also supply significant elements of ground based training equipment and the in-service support capability.

This first PC-21, registered as A54-001, will be handed over to the Royal Australian Air Force at East Sale in June 2017 after completion of testing and verification work in both Switzerland and Australia.

Oscar J. Schwenk, Chairman of Pilatus, commented: "This initial flight of the first Australian PC-21, only seven months after contract signature, is a remarkable achievement and illustrates both the commitment of Pilatus and the hard work of all those involved in the project."

www.pilatus-aircraft.com

Air traffic control centres

(df) Indra and the Chilean Civil Aviation Authority (DGAC in its Spanish acronym) have completed the modernization of en route control centres at Iquique, Puerto Montt and Punta Arenas, as well as approach control centres at Concepción and Antofagasta.

Indra has equipped all of these centres with its advanced air transit management system, designed to handle traffic in even the most complex air spaces, such as Europe. The system furnishes the DGAC with outstanding safety and efficiency standards. The solution also significantly automates control tasks. For example, it features flight plan management tools, automatic flight monitoring systems, safety networks, medium-term transit prediction tools, and much more. The system merges information from monitoring systems (Radars, MLAT/WAM, ADS), flight plans, direction finders and air-ground data link messaging systems (ADS/CPDLC), displaying information to controllers to help them manage flights.

Meanwhile, as part of its partnership with the DGAC, Indra has deployed simulation systems at the Iquique and Puerto Montt control centres to support continuous training for controllers. The simulator is a duplicate of the real system also serving as a backup system or test-bed for new software if required.

www.indracompany.com



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“Not all factors can be described in tech specification”

Interview with Leen Vroegop, Managing Director, L.V. Equipment

What are the origins of L.V. Equipment?

Vroegop: We, LV Equipment BV, a Netherlands based wholesale company, are a supplier of load carrying systems – LCS – to end users in military and police entities. LV was founded in 1985 as a wholesale company and distributed outdoor specialist gear until 2008. The knowledge and understanding of military and police requirements and the ongoing demand for high performance products in the field of LCS has led to the decision to change the organisation in 2008, focusing solely on equipment for military and police applications.

Which are your company's core capabilities?

Vroegop: We have an exclusive agreement with Berghaus Ltd. in the UK for the distribution of LCS worldwide. A licence agreement allows LV to develop specific LCS for the military and police. Berghaus has almost 50 years of experience in the production of backpacks. Combined with the knowledge LV has about the needs of military and police operators (I was an officer in a military SF-Unit), a unique platform has been created to building highly functional and extremely durable LCS.

What does your customer base look like?

Vroegop: Over the years a number of forces have become customers of LV. Nations with Berghaus LCS in service include: Australia, Belgium, France, Germany, Netherlands and the United Kingdom. A large number of other countries have been equipping just military and police SF units or individuals for specific missions. Most of these products have been purchased through regional commercial entities. These customers are not always disclosed.

What are your most important military reference programmes in Europe?

Vroegop: The NL Multi Mission Pack System has become a standard for a lot of countries. BE is now stepping in a wider range of Berghaus packs and units in France are also widening the range of Berghaus packs. The Bundeswehr has been a loyal customer for a long time. Several NATO countries have started testing Berghaus LCS. We are at the beginning of rolling out a significant number of LCS in Europe.

Do you know which of your products have been proven in military service?

Vroegop: I guess the Vulcan has become the most iconic pack although the slightly bigger and more flexible Crusader is starting to take over the leading position.

The “modularity” factor is of increasing importance for personal equipment. Which future trends do you envision and how will your company be positioned in future markets?

Vroegop: Modularity and flexibility were invented by LV. It all started with the Multi Mission Pack System MMPS, offering flexible volumes from 10 to 110 liters that can be built from just one daypack and one large pack. One pack does not fit all, though. The various specialists in a unit require different design features. We now have a modular pack system for snipers named Special Mission Pack System SMPS. Full Mission Pack System FMPS are the rucksacks for radio operators and for operators carrying man portable heavy weapons. With the launch of the Berghaus Medic Pack System BMPS the medics are now also equipped with the right LCS. All of our packs belong to the same family and share modular pockets with which the respective specialist packs can be further customised. Flexibility and modularity are and will be the trend going forward. Berghaus as a brand has massive equity in many markets. The Berghaus slogan is “Trust is earned.”

Trust is not earned overnight. It takes many years of consistent hard work to get there. That positions us in future markets. To protect and increase the credits we have gained.



What is your perception of the current competitive environment in the defence market? What will your company look like and what will your company's portfolio consist of ten years from now?

Vroegop: A competitive environment keeps you sharp. The best one will win, although winning is not always based on having the best price – quality for the equipment proposed. National sentiment is something to take into account. Often purchasing entities are looking at an offer in one dimension only. Everybody meets the minimum specs, so the cheapest will be awarded with contract.

Meeting specifications should not be the only rule to measure. Not all factors can be described in tech specification. The percentage for a decision coming from end user field tests should become a much larger factor of a contract awarding process. LV will happily continue to develop high end LCS. We are breathing rucksacks. Having said that, the recently launched line of Gladius duffels has already become another cornerstone in the company's portfolio. Police SF have a specific demand for duffels to carry hydraulic breaching equipment, personnel protection, helmets, optics etc. After a long time of listening and in-depth discussions we came up with a stunning line of durable mega strong duffels and more to come! We will see where the future will lead us to, we have enough on hand and enough ideas.

The questions were asked by Waldemar Geiger.

Industry & Trade

Rheinmetall keeps on growing

(df) Rheinmetall ended the first half of the year with substantial sales growth and a sharp rise in operating earnings, the company stated. "We are seeing profitable growth in both sectors. In Defence, with our broad technological portfolio, we are benefiting from growing global demand for defense products," Armin Papperger, CEO of Rheinmetall AG.

"This is evidenced by the amount of orders obtained recently: Our order backlog in Defence has never been higher. Automotive remains continuously highly profitable and more than compensated in the second quarter for the slight drop in sales at the start of the year. With our pioneering technologies and global positioning, we are confident of participating further in the growth of the major automotive markets."

The company said, that the Defence sector posted a high order intake of €1,751 million in the first half of 2016, considerably exceeding the prior-year figure (H1/2015: €1,235 million) with growth of 42 %. The sector's order backlog reached a new record value of €6,905 million (June 30, 2016).

The largest single orders in the second quarter of 2016 were acquired by the Defence divisions Weapon and Ammunition and Electronic Solutions. For example, one international customer ordered munitions worth just over €400 million to be delivered until 2022. A major modernization order from the Swiss Armed Forces has a mid-eight-figure volume in euros and includes the modification of the Swiss Air Force's air defense systems until 2019.

Therefore Rheinmetall expects the growth to continue and sales to rise by more than 5% to around €5.5 billion, compared with €5.2 billion in 2015.

As in the previous year, this growth will be driven by both corporate sectors. For the Defence sector, sales are expected to grow to around €2.8 billion after just under €2.6 billion in 2015, because the sales forecast for 2016 is very well covered by the current order backlog.

www.rheinmetall.com



(Photo: Rheinmetall)

Indra's 1H16 results

(df) Indra's net profit totaled €31 million reached in 1H16 vs. losses of €-436 million in 1H15, the company said and continued: Revenues reached €1,322 million, which implies a decline of -1% in local currency (-5% in reported figures).

T&D verticals registered positive growth (+4% in local currency; +2% reported), while the same negative dynamics by sector

(and region) continued to affect IT verticals (-5% in local currency; -11 in reported terms). In 2Q16 sales were up +3% in local currency (0% in reported terms) as a consequence of, among other things, the improved sales performance in Europe (mainly in T&D).

Order intake in 1H16 grew +6% in local currency (+1% in reported figures), accelerating its pace of growth in 2Q16 (+11%

in local currency; +5% in reported figures), with a positive contribution from both the T&D and IT businesses.

Other income totaled €19.5 million compared to €47.7 million in 1H15 as a result of lower subsidies and R&D capitalization in the period. Excluding both effects, other income would have been similar to that recorded in 1H15.

www.indracompany.com

Gottschild new Managing Director of MBDA Deutschland

Thomas Gottschild follows Thomas Homberg as Managing Director of MBDA Deutschland GmbH and Executive Group Director Improvement. He will also be a member of the MBDA Executive Committee. The appointment is effective immediately.

Antoine Bouvier, CEO of MBDA said: "I am extremely pleased to welcome Thomas Gottschild within MBDA. Thomas joins MBDA from Airbus Defence and Space,

where he has held a number of leadership positions in a variety of domains, including engineering, programmes, commercial, business development, strategy, and most recently as Corporate Secretary. I'm sure that Thomas will be an asset for MBDA and decisively contribute to the success of the Company."

"I am looking forward to this new task. I have followed the development of MBDA Deutschland with great interest. MBDA Deutschland has an outstanding team of employees with huge and long standing

experience. It is my main task as Managing Director to boost the implementation of TLVS/MEADS and to meet the challenges ahead together

with the MBDA-Team," said Thomas Gottschild, new Managing Director of MBDA Deutschland.

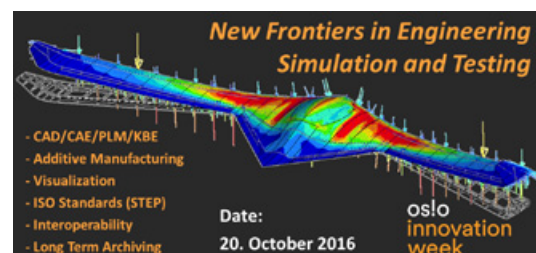
www.mbda-systems.com



New frontiers in engineering simulation and testing

(df) Jotne will conduct a seminar on the subject of "New Frontiers in Engineering Simulation and Testing". This seminar aims to help companies explore new capabilities in simulation and test data management and how to use ISO standards to increase the interoperability of engineering and PLM/ILS information.

Speeches will highlight recent advancements in CAD/CAM/CAE/PLM, including additive manufacturing that enable standards-based product lifecycle management, with presentations given by Lockheed Martin, Jotne, Eker Design, NTNU, Norwegian Defence Research Establishment (FFI), SINTEF and EU/I4MS in addition to an interactive demonstration session at the end of the day.



The seminar will be on October 20, 2016 in the Oslo Military Society in Oslo, Norway.

www.jotneit.no/oiv

AFCEA TechNet Europe 2016

AFCEA, the Association for Communications, Electronics, Intelligence and Information Systems Professionals, is celebrating its 70th anniversary in 2016.

AFCEA Europe –an extension of the AFCEA International Headquarters– organises events in Europe and promotes education – all with the purpose of equipping its individual and corporate members to meet governments' challenges and to further their careers.

AFCEA Europe's annual second flagship event which is this year the "Jubilee TechNet Europe 2016" will be organized under the patronage of the Ministry of Defence, The Netherlands and with the support of AFCEA's The Hague Chapter. Also supported by NIDV (Netherlands Industries for Defence & Security) and VID (Defence IT Experts Association) TechNet Europe 2016 will be held on the SS Rotterdam Cruise Hotel from 3 to 5 October under the umbrella theme "Changing the Game in Security –

Key Role for C4ISR". An industry exhibition will be set up to allow a close look at leading-edge hardware and software applications related to the conference theme.

Confirmed keynote speakers:

- RADM Maarten Tossings, CIO, Ministry of Defence, The Netherlands
- Terry Halvorsen, CIO, Department of Defence, USA
- MGEN. Koen Gijsbers (Ret.), General Manager, NATO Communications and Information Agency
- Rini Goos, Dp Chief Executive of the European Defence Agency
- Murray Davidson, Director of Strategy, NATO Communications and Information Agency
- BrigGen Dr. Michael Fäber, Dp Commander, CIS Command, Germany
- BrigGen Hans Folmer, Commander, Cyber Command, The Netherlands
- Henk Geveke, Managing Director Defence, Safety and Security, TNO, The Netherlands
- Prof. Gabi Dreö Rodosek, Research Centre

CODE, Bundeswehr University Munich

- Prof. Dr. Holger H. Mey, Honorary Professor for Foreign Policy, University of Cologne

Four special theme tracks will deal with:

- From Joint C4ISR to Service Management and Control;
- Serious Gaming becoming Professional;
- Tactical Networking in the Mobile Domain;
- Cyber, what else?

Beyond that, it is planned to run a Student Conference to bring together young students and faculty staff from all over Europe to work on themes related to their studies, as well as supplementing the overall conference theme.

Please get engaged and decide on an active participation in TechNet Europe 2016. Registration and hotel booking are now open and the latest programme is available on www.afceaeurope.org click on "TechNet Europe 2016".

Half-year results of DCNS

(df) DCNS has published their 2016 half-year results, seeing a continued recovery of the operating margin, the company said. Orders taken during 1st Half 2016 amount to €1,263 million. The consolidated revenue of €1,441 million is almost at

the same level that the revenue of 1st Half 2015.

"Half-year results are in line with perspectives outlined at the beginning of the year for the whole financial period," Hervé Guillaou, CEO of DCNS, commented. "They show that we are on track, particularly in

the control of our programmes. DCNS and teams are proud to have been selected by Australia for its SEA 1000 submarine programme which will have economic outcomes coming progressively through the successive contracts to be negotiated."

www.dcnsgroup.com

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Saab presents increase in first half 2016 results

(df) Saab has also presented the results for January-June 2016. "Growing turmoil around the world is impacting the defence market. As a consequence of constrained budgets, Saab is seeing an increase in short-term demand for defence capabilities with cost efficient products and solutions. This makes our efforts with efficiency and to reduce lead times more important than ever. Saab's focus is partly to take advantage of market opportunities and partly on the

execution of a number of major projects," Håkan Buskhe, President and CEO of Saab said.

"Sales amounted to MSEK 13,854 in the first half-year, an increase of 22 per cent. All business areas improved their sales during the period.

The increase was mainly due to the Gripen programme in the business area Aeronautics, a 2015 order for a new version of an airborne surveillance system, GlobalEye, in the business areas Surveillance and Support and Services, and the develop-

ment of the A26 submarine in the business unit Saab Kockums. Operating income amounted to MSEK 611 (367) in the first half-year and the operating margin was 4.4 per cent (3.2).

All business areas but Industrial Products and Services and the business unit Saab Kockums improved their operating margins. Business area Dynamics saw the biggest improvement in operating income thanks to increased deliveries and a change in the product mix."

www.saabgroup.com

Airbus Helicopters and Mahindra team for Indian naval helicopter

(df) Airbus Helicopters has awarded a contract to Mahindra Aerostructures to make airframe parts for the AS565 MBe Panther. These parts will be produced at the Mahindra facility in Bengaluru. They will be shipped to the Airbus Helicopter production line in France where they will be integrated with the rest of the airframe assembly and be part of the Panthers sold worldwide.

"We are playing an active role in the development of a helicopter-focused Indian industrial eco-system, and are embedding Indian suppliers into our global supply chain," said Fabrice Cagnat, Director - Make in India, Airbus Helicopters. "This allows us to qualify Mahindra Aerostructures as a Tier 1 supplier, establish a manufacturing relationship with them on the Panther, and also lay the ground work for a rapid acceleration in terms of industrializing production in India, in case we are selected for the Naval Utility Helicopter programme."

As announced earlier, Airbus Helicopters and Mahindra Defence are in the process of forming a joint venture to target India's military helicopter programmes such as the Naval Utility Helicopter, the Naval Multi-Role Helicopter and the Reconnaissance and Surveillance Helicopter. The AS565 MBe Panther is competing for the Naval Utility Helicopter programme.

www.airbushelicopters.com

www.mahindra.com

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Email: info@ideaspakistan.gov.pk

