

ESD SPOTLIGHT

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

DSEI Review No 2



MASTHEAD

ESD Spotlight

Email newsletter of the magazine
"European Security & Defence" (ESD)

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MITTLER REPORT Published by
Mittler Report Verlag GmbH
A company of Tamm Media Group

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Identification number DE 811 223 089

Business is always about contracts

During DSEI a reception was held at the Czech pavilion, where some 14 companies presented their capabilities and products. These ranged from small observation devices to major systems like armoured vehicles, and although the space was, naturally, limited, an excellent display was put on.

During the reception the 4 guests of honour were introduced, including H.E. Libor Sečka, Czech Ambassador to the UK, and ministerial colleagues Vladimír Bomberovic and Jaroslava Beneš Špalková, who were joined by Martin Macourek from CzechTrade and Jiří Řezáč of AOBP, the Czech Defence Industry Association.

Brief speeches were given by all, including the Ambassador: "I see a lot of possibilities here in UK and, thanks to the international attendance of the show, worldwide for cooperation: we belong to the top 20 countries in defence system manufacturing, and still this percentage could be growing due to the fact that the defence market - especially in Europe - is growing."

The opportunity to meet all the other Czech company representatives at the Czech reception was welcomed, but the lack of delegations was a great disappointment: "Business is always about contracts. And for a contract a good product is a must, but meeting and talking to the right people is a must, too. That is why we are here."

But even though DSEI and the opportunities it offers were appreciated it was pointed out that the show organizers of DSEI – just as those of most other trade shows including IDEX and Eurosatory – failed to deliver the anticipated delegations: only one delegation visited



on the first day of DSEI, and that was a Czech delegation! The sentiment was clear: "If we don't organize the contacts on our own, we won't have many." A further comment was made: "This is why we have met today and I am really happy to see that many people, some that I know and many that I will hopefully get to know soon. I wish all of you a good business and many fruitful contracts at DSEI."

The pavilion was organized by the Ministry of Industry and Trade of the Czech Republic, together with the AOBP and CzechTrade. Companies present included the relatively small but globally successful and well-recognised national leader in firearms, Ceska zbrojovka (CZUB), and some much bigger but less visible enterprises including Omnipol (investment and trading, plus passive surveillance systems), Meopta (precision optics), Mesit (vehicle intercoms, loudspeakers and PA systems), ERA (surveillance and flight tracking solutions), Sellier & Bellot (small arms ammunition) and STV Group (ammunition and munitions ranging from small arms to heavy-

DSEI

12 – 15 September 2017

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ExCeL, London www.DSEI.co.uk



calibre and including RPG-7, SPG-9 and plastic explosives).

A disappointment was that neither the still under-represented CSG holding, nor its export agency, Excalibur International, were present: and another of the Czech Repu-

blic's industrial leaders in its field, Oritest (CBRN) exhibited elsewhere in the show.

A more coordinated approach to publicity, individually and as a group, seems necessary to achieve the delegate and visitor numbers expected – and indeed de-

served – by the Czech participants. For a further assessment of the Czech Republic, its defence industry and military capabilities please see the Czech Country Special in ESD issue 5/17, pages 42-63.

Stephen Barnard

Harris: T7 robot system

(df) At DSEI the British Ministry of Defence (MoD) awarded Harris a contract worth up to £55 million (\$70 million) to provide T7 robotic systems to support U.K. explosive ordnance disposal (EOD) missions around the world. The systems will be part of the MoD's Project STARTER and help defeat a wide variety of explosive threats, including improvised explosive devices (IEDs) and unexploded ordnance. The T7 supports the demanding requirements of commercial and military missions, including hazardous material (HAZMAT) cleanup, EOD, intelligence, surveillance and reconnaissance (ISR) and special weapons and tactics missions.

The robot provides operators with human-like dexterity and haptic force feedback from the robot arm to the remote-control handgrip. The T7's interface provides

ease of use for operators and unmatched command and control. Its precision, control and dexterity shorten task completion time and improve mission effectiveness, and its rugged track system provides the outstanding mobility and manoeuvrability required for rough terrain. A variety of attachments enable use of standard-issue sensors, disruptors and tools that support a wide range of missions, including HAZMAT and the ability to disable and defeat IEDs planted inside vehicles.

"This award will bring life-saving technology to U.K. forces in the field and reaffirms the importance of highly reliable, precise and easy-to-use robotic systems for EOD operators," said Ed Zoiss, president, Harris Electronic Systems. "During Project STARTER's assessment trials in 2016, T7 successfully demonstrated to the U.K. MOD the maneuverability, reliability, and capability



required for the toughest EOD missions. This award also represents the first of several more international contract awards we're anticipating for the T7."

www.harris.com

Avon Protection: display of AVONAIR

(ch) At DSEI Avon Protection displayed the AVONAIR range; the first adaptive powered air system. AVONAIR delivers user configurable modules, adaptable protection factor, increased time on task, reduced physiological burden and lowest cost of ownership, through the systems lifetime. AVONAIR is built around three flexible and adaptable modules; EZAir, MP-PAPR and CS-PAPR.

Common to the range is Avon's intelligent EZAir blower motor, which automatically adjusts its flow rate, depending on the



(Photo: Avon Protection)

number of available filters and the system configuration.

Also shown at DSEI, was the AM69, which, based on the proven FM53 specialist mask

platform, has been developed to meet the requirements of aircrew wearers who require CBRN respiratory protection at all altitudes up to 40,000 ft (12,000 m).

The company also displayed their new MCM100 military rebreather. The MCM100 is a circuit, electronically controlled, mixed gas rebreather CE tested to 100 m, suitable for tactical diving disciplines such as Mine Countermeasure (MCM), Explosive Ordnance Disposal (EOD) shallow or deep, Mine Investigation and Exploitation (MIE) and Special Operations Forces (SOF).

www.avon-protection.com



AEUK: contract from DE&S

(ch) ATLAS ELEKTRONIK UK (AEUK) announced at DSEI the recent award of a contract from DE&S to provide specialist engineering support to the RN's Maritime Autonomous Systems Trials Team's (MASTT's) portfolio of equipment.

AEUK will be providing maintenance, training and post-design services for the duration of MASTT's activities in support of the Mine Countermeasures and Hydro-

graphic Capability (MHC) Assessment Phase.

James Young, Head of AEUK's Surface Ship Systems Division, said "AEUK have a long history in delivering and supporting unmanned systems around the world and are delighted to be able to apply our expertise to this key suite of equipment. The MHC programme is at a really exciting stage now and we are looking forward to working with the MOD to ensure that the best re-



sults are achieved through MASTT's trials programme."

www.uk.atlas-elektronik.com

Atech: main assets and product line

(ch) Atech showed its ARKHE family of products and services at DSEI: ARKHE Command & Control, ARKHE Mission & Combat, ARKHE Intelligence, ARKHE Cyber and ARKHE Academy.

ARKHE Command & Control consists of solutions for planning, surveillance and monitoring, which provide a full view of the

operational theatre for decision-makers. It is possible to integrate existing systems and sensors as well as other technological solutions to this tool.

The ARKHE Mission & Combat solution is designed for maritime and air tactical missions, fully integrating sensors and systems of aircrafts and vessels.

ARKHE Intelligence offers solutions for processing large volumes of information

and data, turning knowledge into intelligence. But it is with ARKHE Academy that Atech showcases its main asset. The purpose of ARKHE Academy is to implement knowledge management and prepare the client's structures for the formation and dissemination of doctrines, operating on the Atech simulation platform and is the main link between the different solutions.

www.atech.com.br

Hatteland Display: Tactical Table

(ch) A new 'Tactical Table' for warships and naval support vessels was in focus on the Hatteland Display stand during DSEI. The company has developed the touch-screen Series X 55" Ultra High Definition Tactical Table to act as a central focus on the bridge

of naval vessels for navigational and operational decision making based on multi-data display from diverse sources and sensors on board.

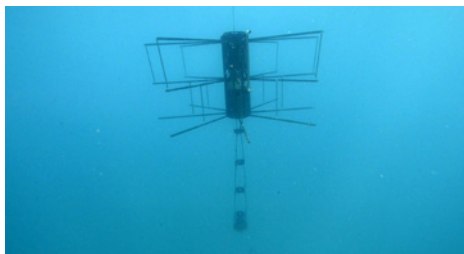
The new Tactical Table provides the size needed to integrate multi-data on a single screen while ensuring that it is easy to

read and manipulate, using 40-point touch screen control. It can deliver data from a wide variety of sensors and sources on board. The high-end, 4K resolution panel ensures that multiple data types can be viewed under all conditions.

www.hatteland-display.com

Elbit: SEAGULL performs ASW

(ch) SEAGULL, Elbit Systems' 12-metre multi mission Unmanned Surface Vessel (USV) system, demonstrated live a remotely operated Anti-Submarine Warfare (ASW) mission. It can be operated from a mother-ship or from shore stations. Via Satellite Communication (SATCOM), the SEAGULL platform, sailing in the Haifa Bay, Israel, performed an operational ASW mission using control consoles situated some 3,515km



(Photo: Elbit Systems)

away in Elbit Systems' booth at DSEI. Operating its Dipping Sonar, SEAGULL performed real-time detection and classification of objects, demonstrating the capability to

deter and dissuade hostile subsurface activity. The SEAGULL team included a USV operator and sonar operator.

SEAGULL provides multi-mission capabilities including ASW, Mine Hunting & Mine Sweeping (MCM), Electronic Warfare (EW), maritime security and underwater commercial missions, leveraging modular mission system installation and offering a high level of autonomy.

www.elbitsystems.com



Fischer Connectors: MiniMax USB 3.0 and UltiMate Power solutions

(ch) Fischer Connectors showcased its ruggedized products designed to meet the growing need for faster, more powerful and smaller solutions in defence & security applications at DSEI.

The ultra-miniature USB 3.0 connector in the Fischer MiniMax Series is a lightweight, high-density component. The Fischer MiniMax Series has been extended to include a new dedicated USB 3.0 contact block in the 08 size; a robust, IP68 solution that meets needs for faster data transfer, higher per-



formance and greater functionality in small devices.

The Power connectivity solution in the Fischer UltiMate Series has been exten-

ded to include two power configurations. New configurations of 2x contacts of 26 Amps each or 3x contacts of 16 Amps each, both combined with 3x signal contacts offer more flexibility, improving the power supply alongside signals and enabling the full integration of UltiMate connectors into all applications.

With IP68/69 or hermetic sealing, and 360° EMC shielding, the UltiMate connector is able to withstand high levels of shock, vibration, corrosion and extreme temperatures, and 10,000 mating cycles.

www.fischerconnectors.com

HORIBA MIRA: 'Last Mile'

(ch) HORIBA MIRA has been awarded two contracts for the development of autonomous systems in the Defence and Security Accelerator's Last Mile competition. The win was announced by Defence Minister

Harriett Baldwin at DSEI and will see HORIBA MIRA deliver innovative systems for the autonomy of Unmanned Ground Vehicles (UGVs) using its Modular Autonomous Control Equipment (MACE) as well as an intelligent routing and path planning system

using Artificial Intelligence (AI). The Last Mile programme seeks to deliver advanced technology solutions that enable the autonomous resupply of soldiers on the front line.

www.horiba-mira.com

Curtiss-Wright: avionics, vetronics, and naval solutions

(ch) Curtiss-Wright's Defense Solutions division displayed its latest vetronics, avionics, and naval platform products at DSEI. Featured products include flexible upgradeable turret aiming and stabilisation drive systems, rugged high capacity storage solu-

tions - such as the Data Transport System, and size, weight, and power (SWaP)-optimized embedded avionics systems - such as the ultra-lightweight Fortress Crash Protected Recorder. Curtiss-Wright's displayed solutions for integrating complete turret drive systems also include Rotary Gear Drives and hand controllers.

In addition, Curtiss-Wright highlighted Video Management solutions, including its family of rugged LCD touch screen displays. Curtiss-Wright's ultra-small form factor Mission Computer and Network Switch subsystems for SWaP-constrained platforms were also on display.

www.curtisswright.com

Cox Powertrain: power density diesel outboard launched

(ch) British diesel engine innovator, Cox Powertrain, showed a model of high powered, low weight 300hp diesel outboard engine, the CXO300 at DSEI.

Backed by the UK Ministry of Defence (MoD), the original concept of the CXO300 is based on a supercharged, two-stroke diesel engine. NATO's single fuel policy, which aims to completely eliminate the use of

gasoline from military use, means that a viable high powered diesel outboard engine such as the CXO300 will be of specific interest to Navies, Coast Guards and other governmental organisations around the world for use on their fast response vessels.

Light in weight, the CXO300 offers the flexibility and convenience of a high powered



gasoline outboard engine with the economy and reliability of an inboard diesel. The engine provides a power-to-weight ratio comparable with high-performance gasoline engines in a package volume around half that of a conventional diesel en-

gine.

www.saltwater-stone.com



Lockheed Martin: training solutions for AJAX

(ch) Lockheed Martin UK showcased innovative training solutions for the British Army's AJAX armoured vehicle programme at this year's DSEI.

The company recently passed its critical design review (CDR) for the new systems, locking down the design with prime contractor General Dynamics Land Systems-UK. The solutions will allow crews to become familiar with the controls, weapon

systems and operation of the AJAX turret as they progress from a classroom environment through to live vehicle exercises.

Two of the four agreed training solutions were exhibited at DSEI for the first time.

Lockheed Martin UK was awarded a \$1 billion contract by General Dynamics Land Systems-UK to design, manufacture and test 245 turrets for AJAX in October 2014.

Lee Fellows, Programme Director at Lockheed Martin UK, said: "Completing the Lockheed Martin CDR for our elements



of the training solutions is a significant achievement and another major milestone for us on the AJAX programme.

www.lockheedmartin.co.uk

Flolda Engineering Services: worldwide expansion

(ch) Flolda Engineering Services (FES) exhibited for the first time at DSEI. The South African company which has shown impressive growth since its formation, was looking to create global networks and partnerships at DSEI.

As a provider of radar and sensor technologies for use in electronic warfare and secure defence communications, FES is an established supplier for South Africa's Department of Defence. Their research and development work in radar technology is the cornerstone of the company's

strategy for worldwide expansion. FES offers a product and services model that is holistic and cultivates high-impact change for defence technologies by researching and developing world-class technologies.

"The extent of exposure and experience that DSEI provides to a company like FES cannot be over emphasised. We have forged our own way in South Africa as a female-owned company operating in a challenging space and we are looking to do the same in Europe through DSEI", explains FES Chief Executive Officer, Florence Musengi.

www.florida-engineering-services.com



DSA: Malaysia participates at DSEI

(ch) Malaysia was represented at DSEI by DSA Exhibition & Conference Sdn Bhd the organiser of the international exhibition Defence Services Asia (DSA), which is supported and co-organised by the Ministry of Defence Malaysia.

At DSA's booth, the Ministry of Defence Malaysia (MINDEF) signed a tripartite agreement between the government of Malaysia, DRB-HICOM Defence Technologies Sdn Bhd (Deftech) and Thales for offset related to the acquisition of the AV8 wheeled armoured vehicle.

TDA Armements, a subsidiary of Thales Group, is the supplier of the 2R2M 120mm mortar to Deftech. Representing MINDEF was Dato' Junaidah Kamarruddin, Deputy Secretary General (Policy) of the Ministry of Defence while Thales was represented by Pierre Benard, Vice President, Vehicles and Tactical Systems. Among the programmes conducted at DSEI the DIT DSO - Malaysia Networking Event, DSA's collaboration with the UK Department for International Trade Defence and Security Organisation (DIT DSO).

www.gocomm.com.my



(Photo: DSA)



MBDA: Sea Ceptor debut at DSEI

(ch) HMS ARGYLL, the first vessel to be fitted with MBDA's Sea Ceptor marked the world debut of the next generation air defence system at DSEI.

Built around MBDA's Common Anti-air Modular Missile (CAMM), Sea Ceptor can protect naval forces from the full range of air threats, including the latest supersonic anti-ship missiles, small precision guided munitions and combat aircraft.

Rear Admiral Simon Charlier, Senior Defence and Political Adviser at MBDA said: "Having just successfully become the

first vessel to complete an at-sea firing of Sea Ceptor, HMS Argyll is the perfect location to host the formal launch of the group.

MBDA is committed to always providing the best in-service support for its customers, and the Sea Ceptor User Group will provide a unique opportunity to exchange ideas and experience that will lead to significant benefits for all involved. Sea Ceptor is the future of naval air defence, and I am hopeful that we will soon welcome additional user navies to the club."

www.mbda-systems.com



(Photo: MBDA)

J&S Franklin: modular infrastructure protection system

(ch) J&S Franklin launched their DefenCell Arch, which is a new lightweight infrastructure protection system, at DSEI. The system

combines the proven modular Arch construction products with the DefenCell MAC and Barrier earth and sand filled barriers.

The adjustable legs and modular load bearing roof panels make the DefenCell Arch

ideal for overhead protection and bunkers but also versatile applications such as water towers and elevated sangars.

www.franklin.co.uk

www.defencell.com

VPI: radiological detection system

(ch) Following the award of a \$165 million contract from the US Department of Defense (DoD) in September 2016, VPI has designed and developed an advanced radiological detection system (RDS) prototype that was unveiled for the first time in public at DSEI.

This advanced RDS consists of a base unit with plug-in probes for detecting different types of radiation in a wide range of scenarios. The system will be manufactured in Salt Lake City by VPI. The final system will be delivered in January 2018, followed by an 18-month testing period. VPI's CEO, Morgan Taylor, commented: "Winning this

major contract, in a competition between several organizations, was something of a David-and-Goliath moment for VPI. We were likely the smallest company in the bid, but also the most agile and so able to respond to exactly what the US Government wanted."

www.vpiengineering.com

Spectra Group: SlingShot

(ch) Spectra Group (UK) Ltd has enhanced its SlingShot product by unveiling new features that are designed to enhance its growing deployment on the battlefield.

The capability of SlingShot has been extended with the availability of power options and the launch of the SlingShot Satellite Emulator (SSE) – an L-Band



emulator for full offline system testing without a live satellite channel; a Universal Power Supply solution affording flexibility in power needs, as well as an AA battery cassette capable of powering the SlingShot Man-pack system.

The SSE comprises a programmable test tool, per-

mitting operators to train with the system as if it were in real-time operational use by simulating satellite connectivity without expenditure. Simon Davies, CEO of Spectra Group (UK) Ltd, said: "New power options for SlingShot deliver increased flexibility and even simpler configuration. The system for BLOS (Beyond Line of Sight) COTM (Communications on the Move) for in-service tactical radios now makes deployment-planning and set-up even easier."

<https://spectra-group.co.uk>

