

ESD SPOTLIGHT

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**European
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SOV and SOV and SOV

This years IDEX has a focus on Vehicles for Special Operation forces (SOV) not to be seen before. Beside the debut of the NIMR Rapid Intervention Vehicle RIV (we reported yesterday) several other companies showed their solution leading to the question, why are SOV so interesting at the moment?

General Dynamics showed their solution for the U.S. SOCOM (Special Operations Command), that won the half a billion dollars contract for a fleet of fast, lightweight, and highly mobile combat vehicles in 2013. The shown Flyer 72 (photo on the right) is a highly mobile platform with a payload capacity over 5,000 pounds and can be configured to multiple crew sizes (up to nine). The seats can be exchanged right to the mission to offer space in the cabin for 3 to 9 crew members. The Flyer 72 is capable of being guns up in under a minute after exiting the aircraft, and can carry variety of armaments. Its adaptable communications suite provides increased operating range and the provides the operator realtime access to critical information. The top speed of the Flyer 72 is 160 km/h with a cruising range of 560 km at mission profile and 1,000 km at 64 km/h. The Flyer 72 therefore offers offers safe and fast operating speeds with superior levels of mobility and maneuverability. It's highly adaptable to severe, rugged and restrictive terrains while providing off-road, cross-country mobility in all types of weather conditions. Other main features are a tailor-made command & control suite, up-armor capability for increase protection, multiple weapon configurations and payload adaptability.



A company specialized in SOV ist Polaris, who focused on their MRZR family for IDEX. The modular cargo bed of the MRZR 4 (photo on the left) allows several modules to be included, it for example supports 1-2 rearward facing seats, 1-2 longitudinally placed litters, or 1 of, an optional jerry can and spare tire holders or anti rattle mounting brackets. The Polaris ProStar 900 engine delivers 88 HP and features Dual Overhead Cams (DOHC), 4 large valves per cylinder for high-RPM power and dual throttle bodies located close to the intake valves. Top speed of the MRZR vehicles is 96 km/h.

Interesting is also the blackout drive and IR capability, that allows the user to eliminate all white light with one switch and install the optional IR lights to Polaris' integrated wire harness.

The vehicle protection consists of front and rear bumpers and a full poly underbody skid plate.

Dorothee Frank

MASTHEAD

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Supacat unveils HMT 400 Desert

(df) At IDEX Supacat unveiled their HMT 400 Desert, a new variant of its "Jackal" Special Operations Vehicle (SOV). HMT 400 Desert has been adapted to enhance



performance in the desert's harsh environment and climatic conditions. It has no armour and the lighter gross vehicle mass improves the power-to-weight ratio and increases mobility over deep desert sand. Further desert features include cooling, a central tyre inflation system and light-weight bead locks to enable the vehicle to be operated at the lowest tyre pressures. The HMT 400 series is already well-proven in the harsh terrain of the Afghanistan battlefield. The air suspension system allows the selection of a variable ride height to match the terrain and also, enable internal loading within CH-47 Chinook. Supplied

with an optional mine blast and ballistic protection kit, the 400 can be fitted with a variety of mission specific hampers, weapons, communications, ISTAR and force protection equipment to suit a wide range of operational roles.

The shown vehicle HMT 400 Desert has been configured to comply with the UAE Presidential Guard's requirements for a new special operations vehicle, including tactical CH-47 internal loading, and has undergone successful tactical trials and testing by UAE forces over the summer.

Supacat at IDEX: 04-C30

<http://supacat.com>

Streit's tactical armoured vehicle Alligator

(df) At IDEX Streit Group presented their newest armoured vehicle: the Alligator 6x6. This is a tactical armoured vehicle with advanced ballistic and blast protection. With its STANAG Level 4 armouring the crew is protected against mine strikes and IED blasts, even greater protection could be achieved by adding ceramic or composite plates.

The Alligator can be used as a platoon strength troop carrier with commander, one driver and eight dismounts. Apart from this configuration the Alligator might also be configured as a command and control platform, forward observation vehicle or in a convoy support role. Other options include making the Alligator amphibious or add an optional CBRN filtration system.

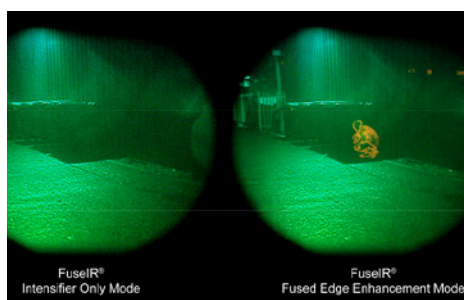
Streit at IDEX: CP-245

www.armored-cars.com



Fused night vision device by Thermoteknix

Thermoteknix has launched Fused Night Vision device, in the Middle East at IDEX 2017. The device will be commercially available from March 2017. Handheld or helmet-mounted Fused Night Vision is the latest development in the world of thermal night vision, combining image intensification (I2) with thermal imaging in a compact and lightweight package, weighing just 400g. Mil Spec Fused Night Vision is built in a rugged alloy housing and boasts a 6 hour operation on just 2 x AA batteries with no need for an external battery pack.



The fusion of the two technologies (Fused Night Vision) offers a combination going beyond capabilities of separate I2 and thermal imaging devices to enable detection and identification of targets in all conditions (low light, complete darkness, inside buildings, in brightly

lit urban environments, through glass, etc.).

Fused Night Vision features Thermoteknix' MicroCAM 3 thermal imaging core and the latest generation, high sensitivity and high frequency responsive intensifier tube. It is the only enhanced NVD with Thermoteknix patented Shutterless XTI Technology, so has no moving parts, is completely silent in operation and is 'Never Blind'. The device supports a variety of operating modes including I2 only, I2 with full thermal (fused) as well as thermal edge enhancement.

Thermoteknix at IDEX: 08-A25

www.thermoteknix.com

New generation of the combat proven microdrone at FLIR

(df) FLIR has for the first time on display the Prox Dynamics Hornets (UAS) at IDEX. These microdrones are the next generation of the ones the British Armed Forces had in use in Afghanistan. Due to the small size the Black Hornet 2 nano sensors are inherently safe and pose virtually no risk to other air vehicles or personnel, allowing the system to be operated almost anywhere at any time without prior airspace coordination.

The Black Hornet's small size and electric motors makes it virtually inaudible and invisible beyond short distances. Also using

the microdrones is quite easy with training only lasting two to three days.

The main features of the Black Hornet 2 are a rotor span of only 120 mm, a mass of 18 g including cameras, maximum speed 5 m/s, endurance up to 25 minutes, digital data link beyond 1,600 m line-of-sight, GPS navigation or visual navigation through video, autopilot with autonomous and directed modes, hover & Stare, preplanned routes, steerable EO cameras (pan/yaw and tilt) and live video and snapshot images.

Even though the company offers its own small computer to go with the system, integration into several other soldier systems, like the German Gladius, has already



been realized, so that the soldier does not need to carry more additional equipment than necessary.

FLIR at IDEX: CP-090

www.proxdynamics.com

Comrod displays the ComPact 2000 DC/AC inverter

(jh) Comrod has launched its ComPact 2000 CD/AC inverter for vehicle radio applications at IDEX.

The system can be operated standalone or mounted in a 19" rack. The RS 485/

CAN bus is used for control, monitoring and setup, serves for the retrieval of detailed status and statistics and is also used to connect multiple units in a redundant or parallel system configuration. Compact 2000 can be software-configured according to customer specification. The firmware is

user upgradeable to comply with future battery technology. The system offers protection against overvoltage, overcurrent, short circuit, reversed input polarity and over temperature.

Comrod at IDEX: C6-006

www.comrod.com

Fibres and fabrics made by CORDURA

The range of new hardwearing and versatile soldier systems fabric technologies on display at the CORDURA brand booth at IDEX include fabrics featuring the new patent-pending CORDURA brand qualifying INVISTA T420HT fiber, Solution Dyed Nylon (SDN) technologies with built-in NIR/SWIR reflectance capabilities, lightweight comfort CORDURA NYCO Tactical uniform fabrics and FR (flame retardant)-coated CORDURA brand polyamides for protective vests.

Of special interest is the new T420HT, a state-of-the-art, patent-pending high tenacity staple fiber targeting next generation durable uniform fabrics. Designed to

help enhance the core strength of fabrics and particularly suited to use in lighter weight constructions, this CORDURA brand qualifying fiber technology is the strongest nylon 6,6 staple fiber ever produced by INVISTA. Already adopted for use in combat uniforms by a major international military, multiple wear trials with fabrics made with T420HT are underway, including extensive testing by the U.S. military.

Besides this fiber, the CORDURA NYCO tactical uniform fabrics were present at the display. Focusing on lightweight comfort, the CORDURA NYCO Tactical fabric is the latest innovation in a long line of CORDURA brand solutions for Future Force Warrior uniform programmes, such as BDU, DCU, ACO, FRACU and SPS. This optimized fabric



(Photo: CORDURA)

is a comfort blend of INVISTA T420 fiber and cotton. It's engineered to help provide security and protection for warfighters and their vital equipment through U.S. Mil-Spec performance at a lighter weight and exceptional durability.

CORDURA at IDEX: 07-A02

www.cordura.com



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HDT Arc-Fire – making your artillery smarter

(jh) Hirtenberger Defence Technologies' Integrated Artillery Fire System (IAFS) provides superior computing technology for the rapid and accurate engagement of targets by artillery assets. As an element of new system or an upgrade or modernisation measure for systems in service, Arc-Fire seamlessly integrates with third-party command and control, target acquisition, communication and support systems. Hardware elements include a laptop computer for the commander and several

handheld devices for use with e.g. the forward observer and other troops. Arc-Fire offers an intuitive user interface and provides data on weapon position, fire mission,



weapon aiming, integrated mapping and a satellite view.

...and your mortars!

Based on a similar system layout a second version of Arc-Fire is offered in support of infantry mortar platoons.

Arc-Fire has already been ordered by a middle-eastern customer in the scope of a major artillery procurement, and several other potential users in Northern Europe, Southwest and Southeast Asia have indicated a serious interest in the system.

Hirtenberger at IDEX: 07-D05

<http://hdt.hirtenberger.com>

Dynamit Nobel Defence – weapon sights and more

(jh) Dynamit Nobel Defence (DND) has on display its range of sights for shoulder-launched weapons.

- TherCam 25/75 is a standalone TI system based on latest uncooled micro-bolometric technology. It provides best possible image quality with large pixel matrix at low pitch. The sight provides night vision capability as well as daytime reconnaissance and suspect tracing. TherCam 25/75 fits the RGW 90 family of shoulder-launched weapons and is compatible with assault rifles.
- MNV-50 is a monocular night vision scope which can be used as handheld ob-

servation sight as well as a weapon-mounted scope in conjunction with a day scope. MNV-90 has been primarily designed as a clip-on camera to the VIS optics of the DND shoulder weapons, namely RGW 60, RGW 90 and Panzerfaust 3. Besides, the camera can be used for surveillance.

- Dynahawk is a sighting device with integrated fire control system developed for the RGW 90 family. It is equipped with a laser range finder, ballistics computer, internal display and allows for the engagements of targets up to a distance of 1.200 metres. The system automatically identifies the ammunition and selects the appropriate operating menu when attached to the launcher.



Other highlights of the DND display at IDEX include the lightweight RGW 90 (HEAT/HESH) recoilless grenade weapons and the mobile DynaSim gunnery simulation system for hand weapons.

DND at IDEX: 08-C09

www.dn-defence.com

New containerised mast from SMAG

(jh) In cooperation with the Czech company ERA, a supplier of passive radar systems, SMAG Mobile Antenna Masts have developed a new integrated mast system. The objective was to connect both elements – mast and radar – to an integrated system configuration.

During transport the whole system is

protected and stored in a military shelter, a standard 20' container. Major advantages of the new mast system include a high weight capacity of up to 1.2 tons with highest accuracy at the mast point, even at high wind speeds. SMAG masts are fully automated and operable in intermediate heights.

SMAG at IDEX: 08-C04

www.smam.de



UAE procures anti-ship missiles from MBDA

In the context of the trade show MBDA has been awarded a contract by the UAE Navy to supply additional Marte MK2/N anti-ship missiles. This is a follow on to the contract signed in February 2009 for the supply of Marte missiles.

Each high speed multi-role combat vessel will be equipped with four box launchers for MBDA Marte Mk 2/N guided missiles, able to strike targets at ranges in excess of 30 km, flying a fire-and-forget sea-skimming profile using midcourse inertial guidance and active radar homing.

Antoine Bouvier, CEO of MBDA, commented: "I am delighted that the UAE has confirmed the trust placed in MBDA for its defence requirements. MBDA is one of the country's leading defence suppliers and will continue to show our long-standing commitment and support for the UAE Armed Forces."

Pasquale Di Bartolomeo, MBDA's Executive Group Director Strategy and Managing Director of MBDA Italia, said: "This new contract reaffirms MBDA pre-eminence in the anti-ship sector and it is a clear proof of the technology leadership of the Marte missile family that, over the



(Photo: MBDA)

years, has continued to be competitive and able to respond to increasing customer requirements, thanks to its modular design."

MBDA at IDEX: 07-A07 and C11-21
www.mbda-systems.com

Cooperation on cyber security capabilities

Leonardo and the Abu Dhabi-based IGG (International Golden Group PJSC) have signed a strategic collaboration agreement to supply cyber security capabilities in the UAE at IDEX. Within this collaboration Leonardo and IGG will together identify and implement advanced solutions including Security Operations Centres (SOCs). The agreement's aim is to integrate the solutions and the market knowledge offered by IGG, which will be the local prime contractor and which already provides high-level security to national customers, with Leonardo's state-of-the-art know-how, in a long-term strategic and international partnership.

Recently, the United Arab Emirates underlined cyber security as a key factor in



the country's development, with the aim of identifying prestigious partners with which to develop cutting-edge solutions and infrastructures. Leonardo offers fitting solutions and sets up complex real-time monitoring and reaction centres, advanced information technology infrastructure and key management services. This will permit the UAE to prevent, identify and oppose sophisticated and persistent cyber threats, safeguarding the most delicate assets.

IGG is one the main Emirates companies operating in the defence and security sector. A partner of the UAE's Armed Forces, Ministry of the Interior and other national security authorities, IGG provides advanced solutions and technologies thanks to its capability in systems integration and proven experience in product development.

Leonardo has been providing information assurance and cyber security solutions to private and public organizations for over thirty years, including the defence ministries of Italy and the United Kingdom. The company is the prime contractor for the NATO NCIRC (Computer Incident response Capability).

IGG at IDEX: 04-C30

Leonardo at IDEX: 06-A03

www.igggroup.ae

www.leonardocompany.com

Harris wins contract

Harris has received a two-year, \$189 million contract to provide an integrated Battle Management System (BMS) to the United Arab Emirates Armed Forces. The contract was received in the scope of IDEX. The sys-

tem will provide the UAE with initial operational capabilities as the country implements enhanced battlefield management solutions.

The contract was issued under the Emirates Command & Control System (ECCS)

Land Tactical System (ELTS) programme, a major C4ISR programme that will integrate, coordinate and maximize the combined efficiency of UAE Armed Forces assets.

Harris at IDEX: 03-C22

www.harris.com



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