MRO, RETROFIT & IN-SERVICE SUPPORT DAY
21 JANUARY 2019

**MRO & RETROFIT TRACK**

**SUBJECTS UNDER DISCUSSION:**
- CDOE: The Contested and Degraded Operating Environments faced, future threats, and the current challenges posed that impact on upgrade requirements and capabilities
- Fleet MRO: Maintenance, Repair and Overhaul of the legacy fleet to ensure continued capability at an affordable price whilst protecting platforms from corrosion and mechanical failure
- Modernisation: Solutions on offer to modernise legacy equipment with upgraded technology in order to ensure the continued effectiveness of the fleet
- Maintenance: How vehicles are maintained in different operating environments (for example, PSO and austere environments), and the different challenges posed by different environmental conditions
- Upgrades: The implications of upgrades to armour, firepower, and systems on weight and other vehicle considerations

**0715 MORNING REGISTRATION**

**0755 CHAIRMAN’S OPENING REMARKS**
Chris Foss, Land Consultant, IHS Janes

**0800 KEYNOTE ADDRESS: ENSURING THE READINESS OF THE ARMOURED VEHICLE FLEET OF MALAWI**
- Acquisition and upgrade of armoured personnel carriers, light trucks, fuel tankers, field ambulances, water bowser, buses and logistics vehicles to replace the old Tata-made military fleet
- Usage of armoured mobility in activities such as wildlife protection, emergency relief services, roads construction services among other national and international services
- General Griffin Spoon Phiri, Commander, Malawi Defence Forces

**0830 SESSION RESERVED FOR aselsan**

**0900 MAINTENANCE OF THE ANGOLAN ARMED FORCES ARMOURED VEHICLE FLEET**
- General Artur Goncalves, Chief of Army Directorate for Armament and Equipment, Angolan Armed Forces

**1000 MORNING COFFEE AND NETWORKING**

**1030 GUNSHOT DETECTION SYSTEM FOR THREATS LOCALISATION**
- A mature technology combat proven
- GDS crucial component of modern Vetronics
- Main role in Collaborative Defence architecture
- Julien Marmonier, Area Sales Manager, METRAVIB Defence

**1040 MAINTAINING, SUSTAINING AND UPGRADING ZAMBIA AMOURED CAPABILITY TO SUPPORT UN AND REGIONAL PEACE SUPPORT MISSIONS**
- Overview of current fleet inventory
- Contributions to UN Peacekeeping Missions that include MINUSCA, UNAMID and UNMISS
- Maintenance and sustainment of the current fleet and future plans for improved capability
- Lieutenant General Paul Mihova, Commander, Zambian National Defence Force

“One of the advantages of this seminar is that the military get to describe our challenges... and then our industry partners can give us an idea of what is in the realm of the possible - what technologies are out there - and then as we give them requirements, they can give us possible solutions”

General Perkins, Commanding General, U.S. TRADOC - 2017 Keynote Speaker

**IN-SERVICE SUPPORT TRACK**

**SUBJECTS UNDER DISCUSSION:**
- Trainability: The Military requirement for through-life training and how this can be achieved for AFVs and IFVs
- Supportability: How does industry support the end user? Including supply of spares, training, manuals and engineering support
- Availability: How to keep equipment at high-readiness for combat operations
- Maintainability: How and why parts fail and how they can be improved for longer life
- Logistics Support: How do industry and the Army make sure spares are at the right place at the right time in order to ensure an efficient and cost-effective stock management operation?
- Obsolescence Management: Future-proofing the fleet to ensure vehicles last longer and reduce the through-life cost of future vehicles

**0715 MORNING REGISTRATION**

**0755 CHAIRMAN’S OPENING REMARKS**
Major General Robert Talbot Rice CBE, Former Director Land Equipment, Defence Equipment and Support – UK MoD

**0800 KEYNOTE ADDRESS: IMPROVING THE ARMOURED VEHICLE RELATED CAPABILITY OF NATO AND EUROPEAN UNION MEMBER NATIONS**
- Providing responsive, effective and cost-efficient acquisition to Allies, NATO Military Authorities and partner nations, individually and collectively
- Management of acquisition and logistics support to NATO, its Nations and Partner Nations in the capability areas of System Acquisition/Procurement and Life Cycle Management, Strategic Transport and Storage (except NAMP), Logistics Services and Project Management in the Land, Air, Naval and Joint Service capability domains
- Brigadier General Rudolf Maus, Director, Life Cycle Management, NATO Support and Procurement Agency

**0840 Mission Command On The Move: Armoured Platforms, Command Vehicles, and Command Posts**
- Network, hardware, and software applications that are agnostic, modular, expandable, and GVA compliant for legacy, emerging, and future equipped armoured formations
- On Board Vehicle Power source that enables more agile operations and reduces the armoured command post footprint
- Expeditionary Brigade, Battalion Command Post Forcible Entry and Uninterrupted Battle Management and Mission Command capability that is interoperable with US, Joint, and Coalition Partners
- Al Mosher (Colonel, USA RET), Senior Director Strategic Campaigns and Planning, DRS Land Electronics.

**0920 CURRENT APS & VPS ACTIVITIES AND STRYKER LETHALITY**
- Up-Gunning the STRYKER
- Executing a fourth non-development APS system evaluation
- The new Common Remotely Operated Weapon Station configuration for Stryker combat vehicles
- Colonel Glenn Dean, PEO Stryker, U.S. Army

**1000 MORNING COFFEE AND NETWORKING**

**1030 ELECTRIC PROPULSION AND MORE ELECTRIC ARMORED VEHICLES IN THE FUTURE BATTLEFIELD- FROM 6T BATTERY TO HV BATTERY**
- Senior Representative, Epsilor

**1040 MODERNISATION OF SLOVAK ARMOUR MOBILITY & FIGHTING CAPABILITY**
- Plans to indigenousy produce and purchase (81) 8x8 armoured vehicles and (404) 4x4 vehicles through development cooperation with Patria for the 8x8
- Outlining the technical requirements for both vehicles with delivery anticipated between 2018 – 2024
- Colonel Vladimir Kavicky, National Armaments Director, Ministry of Defence of the Slovak Republic
MRO, RETROFIT & IN-SERVICE SUPPORT DAY
21 JANUARY 2019

1110 ADVANCES IN FORWARD LOOKING INFRARED (FLIR) SENSORS, FLAT PANEL DISPLAYS (FPD) AND NIGHT VISION IMAGING SYSTEM (NVIS)
- MRO upgrade sensor / display options
- Thermal Night Vision principles and generations
- Second generation FPDs compatibilities with Third GEN FLIR

Senior Representative, American Panel Corporation

1140 BANGLADESH’S EXPERIENCE IN COUNTERTERRORISM AND UN MISSIONS: THE RELEVANCE OF FORCE PROTECTION
- National security threats of Bangladesh and the requirement for modern armoured mobility capability
- Procurement of new 4x4 light armoured vehicles (LAVs) to be deployed by the Bangladesh Army in UN peacekeeping missions
- Requirement for the LAVs to be a standardised platform for use in ambulance, command, and reconnaissance and surveillance roles

Lieutenant General Md Mahfuzur Rahman, Principal Staff Office, Bangladesh Armed Forces

1240 NETWORKING LUNCH

1330 JORDANIAN ARMOUR AND MECHANISED FIGHTING CAPABILITY
- Brigadier General Basim Alaween, Commander, Armour Brigade, Jordanian Armed Forces

1400 LOW COST CVG FOR HIGH GRADE TARGETING SYSTEMS
- InnaLabs CVG Technology
- Gyro Requirements for Remote Control Weapon Stations
- Evaluation of optimised Gyro Performance

Jose Beitia, CTO, InnaLabs

1430 OPEN ARCHITECTURE FOR THE FULL SPECTRUM - VEHICLES, BASES, SOLDIERS & THEIR DIGITAL OPERABILITY
- The Ultra Electronics Group manages a wide range of specialist capabilities, generating highly-differentiated solutions and products in the defence & aerospace, security & cyber, transport and energy markets by applying electronic and software technologies in demanding environments and critical applications to meet customer needs.

Senior Representative, Ultra Electronics

1430 PANEL DISCUSSION: OPEN SYSTEMS: PROVIDING OPPORTUNITIES FOR INNOVATION
- Open systems are being talked about by potential customers, across governments, military services and primes as the way ahead for system acquisition. However, to achieve the desired benefits, particularly for the user, modular design and construction is a key aspect of the system architecture as this enables an incremental acquisition strategy and the agility to introduce new applications or sub-systems, for example, in response to a change in threat. This is also a key concept for managing obsolescence. Modular design utilising defined open interfaces within a defined open infrastructure and based on recognised open standards, provides considerable operational and commercial flexibility. This panel discussion will examine the opportunity to embrace technical innovation quickly and easily as granted by this flexibility. As much of the technological innovation is driven by SMEs, this session has been designed specifically to facilitate engagement with Primes and End Users.

Moderated by Professor Merlyn Lloyd, lately science advisor, DE&S – UK MoD

EARLY CONFIRMED DISCUSSANTS
- Richard Hooper, Principal Vetronics Engineer, Platform Systems Division, Dstl
- Major Michael Dawson, SO2 Land Combat System Architecture, Land Network Integration Centre, Australian Army

1430 THROUGH-LIFE TRAINING FOR CZECH ARMOUR AND MECHANISED UNITS
- Current training practices for the existing fleet of IFVs and AFVs
- Czech military requirements for through-life training
- Evolving CONOPS for the future operating environment

Colonel Jan Štěpánek, Head of Training Department (G7), Czech Land Forces

1430 BUILDING A NEW ERA OF SECURITY: ERA: A HUNGARIAN APPROACH TO IMPROVING ARMOUR AND MECHANISED CAPABILITY
- Outlining current armoured and mechanised capability relative to the complex security context the Hungarian Armed Forces currently faces – which includes the use of armoured vehicles in response to the migration of refugees on the Hungarian borders of Croatia, Serbia and Romania
- What are the consequences of the Zrínyi 2026 modernisation programme for the Hungarian Land Forces?
- Future plans, strategic priorities and challenges

Brigadier General Zsolt Sándor, Commander, Hungarian Ground Forces
THE WORLD'S LARGEST DEDICATED ARMOURED VEHICLE CONFERENCE

MRO, RETROFIT & IN-SERVICE SUPPORT DAY
21 JANUARY 2019

1530 AFTERNOON TEA AND NETWORKING

1700 THE IMPORTANCE OF PROTECTED MOBILITY FOR THE UPDF IN PEACE SUPPORT OPERATIONS
- Examining the current armoured and mechanised capability of the UPDF
- Reflections on operational requirements and challenges faced by UPDF armoured forces
- Lessons from Somalia and experiences using mine-resistant vehicles and the upgrades and retrofit required for these missions

Brigadier Joseph Musoke Seemwanga, Commander of Armoured Forces, Uganda People’s Defence Force

1730 CHAIRMAN’S OPENING REMARKS
Christopher F Foss, Editor, IHS Jane’s Armoured Fighting Vehicles, Consulting Editor, IHS Jane’s Land Forces

1530 AFTERNOON TEA AND NETWORKING

1540 THE MULTI ROLE ARMOURED VEHICLE: BOXER

1540 BOXER FOR MIV - BRITISH BY BIRTH
- BOXER’s protection: Making it safe
- BOXER’s modularity: Making it unique
- BOXER’s growth potential: Making it futureproof
- BOXER’s mobility: Making it agile

Stefan Lischka, Managing Director, ARTEC

1610 OCCAR – THE ORGANISATION FOR JOINT ARMAMENT COOPERATION & THE MANAGEMENT OF THE BOXER PROGRAMME
Andreas Zekorn, Programme Manager for BOXER, OCCAR

1630 LITHUANIAN BOXER VARIANTS
Major Nerijus Šivickas, BOXER Project Lead, Lithuanian MoD

1650 SLOVENIAN BOXER VARIANTS
Miha Matek, Head of Armaments Project Management Division, Slovenian Ministry of Defence

1710 BOXER IN-SERVICE MANAGEMENT
Bob Elvish, Programme Manager, Land Combat Vehicles, NSPA

1730 CHAIRMAN’S CLOSING REMARKS
Major General Robert Talbot Rice CBE, Lately Director Land Equipment, Defence Equipment and Support, UK MoD

“This is the main rendezvous for me to discuss Armoured Vehicles. If I can retain only one rendezvous in the year it is here at IAVs”
Major General Charles Beaudouin, French Army, Speaker 2016, now speaking on Main Conference Day Two 2019

“IT’s always good to get our suppliers together, our analysts, friends and colleagues from other armed forces, to compare notes on the evolution of armoured vehicles.”
General Sir Peter Wall, Then Chief of the General Staff, British Army, Keynote Speaker 2014

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# MAIN CONFERENCE DAY ONE
22 JANUARY 2019

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>0710</td>
<td><strong>REGISTRATION &amp; COFFEE</strong></td>
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<tr>
<td>0750</td>
<td><strong>CHAIRMAN’S OPENING REMARKS</strong></td>
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<tr>
<td></td>
<td>General Sir Adrian Bradshaw, KCB, OBE,</td>
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<td></td>
<td>Deputy Supreme Allied Commander Europe (2014-2017), Conference Chairman</td>
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<tr>
<td>0800</td>
<td><strong>TRADOC OPENING KEYNOTE ADDRESS</strong></td>
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<tr>
<td></td>
<td>Lieutenant General Theodore D. Martin, Deputy Commanding General</td>
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<td>U.S. Army Training and Doctrine Command</td>
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<td>0830</td>
<td><strong>SESSION RESERVED FOR LEAD PARTNER - NIMR AUTOMOTIVE</strong></td>
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<tr>
<td>0900</td>
<td><strong>PANEL DISCUSSION: LAND FORCE COMMANDERS PANEL DISCUSSION</strong></td>
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<td>An annual highlight – the discussion will analyse some of the key</td>
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<td>challenges that Commanders of Land Forces are facing in the</td>
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<td>contemporary environment and those anticipated through 2035 and beyond.</td>
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<td><strong>MODERATED BY</strong></td>
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<td>Lieutenant General Patrick Sanders, Commander Field Army, British Army</td>
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<td><strong>DISCUSSANTS</strong></td>
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<tr>
<td></td>
<td>Lieutenant General Christopher Cavoli, U.S. Army Europe</td>
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<td>Lieutenant General Tim Radford, Commander, Allied Rapid Reaction Corps,</td>
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<td>Major General Karl Engelbrektson, Army of Sweden</td>
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<td>Major-General Marc Thys, Commander, Belgian Land Component</td>
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<td>Major General Odin Johannessen, Norwegian Army</td>
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<td>Major General Hans-Christian Mathiesen, Defence Command Denmark</td>
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<td>Brigadier General Zsolt Sándor, Hungarian Ground Forces</td>
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<td>1000</td>
<td><strong>MORNING COFFEE AND NETWORKING</strong></td>
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<td>1045</td>
<td><strong>US ARMY’S MOBILE PROTECTED FIREPOWER PROGRAMME</strong></td>
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<td>- The current status of program and the anticipated award of two</td>
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<td>contracts for the Engineering and Manufacturing Development phase in</td>
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<td>early Fiscal Year 2019</td>
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<td>- Why is the MPF programme so critical for the Infantry Brigade</td>
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<td>Combat Teams (IBCT)?</td>
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<td>- Deployment in austere and unpredictable locations allowing the</td>
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<td>avoidance of the enemy’s strengths and enabling the rapid transition</td>
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<td>to offensive operations to exploit the initiative</td>
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<td>Mr. David Dopp, Program Manager, Mobile Protected Firepower, PEO-GCS</td>
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<td>U.S. Army</td>
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<td>1145</td>
<td>**INDUSTRY LEADERS PANEL DISCUSSION: IDENTIFYING TRENDS IN THE MARKET,</td>
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<td>FUTURE DEVELOPMENTS AND EXAMINING THE CHALLENGES FACED BY THE</td>
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<td>CUSTOMER**</td>
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<td>This panel discussion invites key industry players to debate the topics</td>
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<td>currently driving the community – questions will then be opened to the</td>
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<td>- Collaboration and partnerships among industry is important. How is</td>
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<td>industry doing this effectively to deliver military capability at an</td>
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<td>affordable price?</td>
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<td>- Local content requirements are common in many nations. What</td>
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<td>case-studies demonstrate where this can be done to everyone’s advantage</td>
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<td>and where can local content make the biggest impact?</td>
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<td>- What are the technological breakthroughs and performance requirements</td>
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<td>that vehicle users are now looking for/or should be looking for?</td>
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<tr>
<td>1230</td>
<td><strong>LUNCH HOSTED BY NIMR AUTOMOTIVE</strong></td>
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### Main Conference Day One

**22 January 2019**

#### Survivability Stream

**Chaired by**

**General Sir Adrian Bradshaw, KCB, OBE, Deputy Supreme Allied Commander Europe (2014-2017)**

**Improving the Survivability and Protection of Land Armoured Vehicles Through Active Protection Systems (APS)**

- Conducting a proof of concept Technical Demonstrator Programme (TDP) to develop a Modular Integrated Protection System (MIPS)
- Developing an APS Electronic Architecture (EA) that is founded upon Modular Open System Architecture design principles

**Tom Newbery CPhys, Platform Survivability Group, Dstl**

#### Firepower Stream

**Chaired by**

**Brigadier General Ralph Lungershausen, Chief of Division Planning II, Strategic Capability Development, Directorate-General for Planning, Bundeswehr**

**Maximizing Operational Capability, Readiness, and LCC Through Cockerill® 3000 Series Modularity**

- Execute complete target set effectively
- Maintain extremely high readiness (Training and Maintenance)
- Do both economically, within today and tomorrow’s constraints

**Bear Midkiff, Vice President Sales and Marketing, Central and Eastern Europe, CMI Defence**

#### Mobility Stream

**Chaired by**

**Lieutenant General Ben Hodges, Commanding General, U.S. Army Europe (2014-2017)**

**Spanish Contribution to VJTF (L), Armoured and Mechanised Capabilities**

- Contributions by Spain to the Very High Readiness Joint Task Force (VJTF) of NATO in 2018
- Feedback from the ‘Resolute Action’ exercise, conducted San Gregorio Training Centre in Zaragoza
- Training for hybrid war operations inside a semi-desert environment and with the presence of civilian people

**Brigadier General Aroldo Lazaro Saenz, Commander, “Brigada Guzman el Bueno” X, Spanish Army**

#### Survivability Stream

**Saab, Force Integrated Survivability**

- Signature Management, a truly disruptive technology for the STRIKE BDE
- Local Situational Awareness Systems - see first act first
- Vehicle Electronics - System configurations according to your needs

**Niklas Ålund, Director Strategy and Business Development & Marcus Zakrisson, Product Sales Vehicle Systems, SAAB**

#### Israeli Active Protection System Capability

**Operating the only fully operational and combat-proven APS in the world**

**Current APS capability which includes four fire-control radars to track incoming threats such as anti-tank-guided-missiles and rocket-propelled grenades**

**Plans for further weapons development**

**Major Yanay Ish-Am, Weapons Development Department, Armored Branch, Israel Defence Force**

#### Developing the UK’s Battlegroup Organic AntiArmour Capability

**Strategic and operational drivers for mounted and dismounted antiarmour capability**

**Technology assumptions and enabling research and development**

**Route to delivery**

**Dr Mike Dalzell, Complex Weapons - Science Gateway, Directorate Strategic Programmes – WECA, UK MoD**

#### Heavy Forces: Italian Army Perspective and Future Developments

**Operational environment considerations: Focus toward warfighting campaigns**

**Influence of land power and the expanding role of heavy forces**

**Wheels vs tracks dilemma**

**Italian Army perspective on heavy forces capabilities**

**Brigadier General Angelo Minelli, Commander of the Cavalry School and Inspector of the Cavalry, Italian Army**

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### Main Conference Day One

**22 January 2019**

#### 1500

**Trophy - The Only Operational, Combat-Proven APS in the World**
- Trophy-HV aimed to medium and heavy platforms and Trophy-LV for light and medium tactical vehicles
- Installed on over 3 brigades of the Israel Defense Forces Merkava MBTs and Namer IFVs
- Trophy, combined with Rafael’s other combat proven solutions, will enable greater survivability and greater lethality

**I See the Light**
- Providing ground vehicle operators with advanced warning when they are a target of laser-aided weapons
- Giving warfighters the precious time they need to act and defeat the adversary while enabling superior survivability
- Laser warning systems detect, prioritize in order of lethality, and characterize laser rangefinders, laser designators and laser beam-riding missile threats

**Composite Rubber Track Operate at Reach - Lower Logistic Need - Fight for Longer**
- An overview of the Composite Rubber Track System
- Survivability benefits:
  - Noise & vibration (troops fight for longer)
  - Durability & maintainability
  - Vehicle weight & manoeuvrability
  - Ammunition & electronics
  - Low logistic support & Life cycle costs
- Challenges for integration and maintainability

---

**Revision Military – Powering Protection – The Right Lithium Solution for Your Platform Needs**
- Revision Military designs, develops and delivers innovative battlefield energy solutions to protect the soldier and the platform, to deliver Mission Survivability through signature and penetration management, reducing platform acoustic, thermal and logistic signatures.
- Revision’s energy solutions provide prolonged performance at high loading, supplying high capacity and maintenance free, low cost of ownership, low logistic drag energy solutions delivering operational energy independence and self-reliance to expeditionary forces.
- Revision powers protection and delivers tailorable, scalable and reconfigurable platform power solutions delivering improved power density, reduced platform weight and greater power to weight ratios.
- Revision’s SWATPack and SWITCHPack; energy solutions for today’s and tomorrow’s Armoured Vehicles

**MX-GCS Above Armor Sensor Flexibility for the Next Generation of Combat Vehicles**
- The L3 Wescam MX-GCS is a light weight, advanced, high performance above armor sighting system specifically designed for combat vehicle applications
- The single common sight can be utilized as both a high accuracy gun-sight and/or 360 degree Commander Independent Viewer (CIV)
- The systems modular scalable design enables it to meet and adapt to user requirements & budgets

**COMPOUND RUBBER TRACK OPERATE AT REACH - LOWER LOGISTIC NEED - FIGHT FOR LONGER**
- An overview of the Composite Rubber Track System
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- Challenges for integration and maintainability

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**Panel Discussion: Survivability**
- Rocket Propelled Grenade (RPG) protection Vs. Active Protection Systems (APS)
- Future trends in survivability
- Soft kill vs Hard kill – different systems available and trade-offs

**Panel Discussion: Mobility**
- Gap crossing techniques and equipment to allow manoeuvre and firepower to occur
- Wheels Vs. tracks – all terrain capabilities and logistical trains, trade-offs and latest operational feedback

**Panel Discussion: Firepower**
- Remotely Controlled Weapon Stations; what are the disadvantages of these systems?
- What is the optimum combination of firepower, protection, mobility and operational readiness?
- Up-gunning APCs and integrating missile systems on to IFVs; what are the trade-offs?

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- Deployability and manoeuvrability, how quickly can vehicles arrive at the fight?

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**Afternoon Tea and Networking**

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**1600**

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**1630**

**Panel Discussion: Survivability**
- Rocket Propelled Grenade (RPG) protection Vs. Active Protection Systems (APS)
- Future trends in survivability
- Soft kill vs Hard kill – different systems available and trade-offs; what are the effects on nearby infantry?

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**Moderação by**
- General Sir Adrian Bradshaw, KCB, OBE, Deputy Supreme Allied Commander Europe (2014-2017)
- **EARLY CONFIRMED DISCUSSANTS:**
  - Lieutenant Colonel Denis Servais, Directorate General Materials Resources, Land, Systems, Belgian MoD
  - Major James Hollas, Armoured Trials & Development Unit, British Army
  - Dr Mike Dalzell, Complex Weapons - Science Gateway, Directorate Strategic Programmes – WECGA, UK MoD

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**Moderação by**
- **EARLY CONFIRMED DISCUSSANTS:**
  - Brigadier General Aroldo Lazaro Saenz, Commander, “Brigada Guzman el Bueno” X, Spanish Army
  - Colonel Shane Fullmer, Joint Light Tactical Vehicle Joint Program Office Manager, U.S. Army
  - Major Charles Brunskill, Armoured Trials & Development Unit, British Army

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  - Colonel Shane Fullmer, Joint Light Tactical Vehicle Joint Program Office Manager, U.S. Army
  - Major Charles Brunskill, Armoured Trials & Development Unit, British Army
1700  TRANSMISSION TO BRING AUDIENCE TOGETHER FOR PLENARY SESSION

1715  THE U.S. ARMY’S NEXT GENERATION COMBAT VEHICLE

- Current program status, initial requirements and roadmap
- Developing requirements to bring the NGCV to life, with an initial fielding goal of 2035 that could replace potentially both the Bradley Fighting Vehicle and the Abrams tank
- Optimised for urban combat with an emphasis on lethality and power, whilst also being able to operate manned or unmanned

Brigadier General Richard Coffman,
Director, Next Generation Combat Vehicle, U.S. Army

1815  STRATEGIC LEADERSHIP DEBATE: A CHANGING WAR

The current threat context can be defined by a multiplicity of new characteristics; cyber attacks, asymmetric warfare, terrorism at home and abroad, a resurgent Russia, the unpredictability of North Korea, a maturing Iranian nuclear capability, the numbers advantage of China and the clandestine operations of non-state actors. Arguably, we are only just beginning to adapt our forces to these new norms and the probable characteristics of the next war. What role can Command play in combating these threats and what responsibilities do vehicle operators have here?

The Vostok exercise mobilized a vast combined force, punctuated by an accelerated defence partnership between Russia and China that demonstrated the participants’ ability to deliver unprecedented combat mass and the logistical means to support it. What did we learn about the role of the approximated 36,000 armoured assets that took part in the exercise and how must NATO use its own assets to similar- or better- effect?

To enable a comprehensive breadth of debate and insight, both in a historic sense and with the required contemporary knowledge, this panel discussion will feature a selection of perspectives from our currently serving senior military leaders, alongside a selection of our retired greybeards.

MODERATED BY:
General Sir Adrian Bradshaw, KCB, OBE,
Deputy Supreme Allied Commander Europe (2014-2017), Conference Chairman

EARLY CONFIRMED DISCUSSANTS:
Lieutenant General Theodore D. Martin,
Deputy Commanding General, U.S. Army Training and Doctrine Command
Lieutenant General Ben Hodges,
Lieutenant General Payenda Mohammad Nazim,
Commanding General, United Training, Education and Doctrine Command, Afghan National Army

1900  DRINKS RECEPTION HOSTED BY RUAG DEFENCE

GALA DINNER (Invitation Only)

“I was very privileged to be able to speak here today. But, the true value is in the personal relations to be able to have those types of side bar discussions. To be able to talk with industry to see what capabilities are here and what they are promising for the future.”

# MAIN CONFERENCE DAY TWO
## 23 JANUARY 2019

<table>
<thead>
<tr>
<th>Time</th>
<th>Session/Activity</th>
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<tbody>
<tr>
<td>0730</td>
<td>Registration &amp; Coffee</td>
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<tr>
<td>0745</td>
<td>Chairman's Opening Remarks</td>
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<tr>
<td>0800</td>
<td>Keynote Address: Army Futures Command</td>
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<td>0900</td>
<td>MANOEUVRE IN MULTI-DOMAIN OPERATIONS</td>
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<tr>
<td></td>
<td>- Robotics &amp; Autonomous Systems and preparing to fight in urban environments</td>
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<td></td>
<td>- Why do we need the RAS capabilities and how RAS enhances combat leaders in Multi-Domain Operations (MDO)?</td>
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<td>- How RAS capability can save lives and led to a decisive advantage in combat operations?</td>
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<tr>
<td>1000</td>
<td>Denmark's Mechanised Forces: Recent Operational Lessons and Future Developments</td>
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<td>- Current and planned upgrades, modernisation and adaptation to leverage new capabilities</td>
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<td>- Delivery of a new fleet of Piranha 5 vehicles is scheduled for 2018-2023</td>
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<td>- How Denmark attaches vehicles to combat groups and the concept behind its force structure</td>
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<td>1100</td>
<td>Morning Coffee and Networking</td>
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<tr>
<td>1130</td>
<td>Land 400 Programme Update</td>
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<td>- Phase 1 &amp; Phase 2 delivery review</td>
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<td></td>
<td>- Phase 3 – IFV and MSV – Infantry Fighting Vehicle and Manoeuvre Support Vehicles (tracked, turreted, circa 45 tonnes) replacing M113</td>
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<td>- Phase 4 – Planning for the Integrated Training System</td>
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<td>1200</td>
<td>Session Reserved for General Dynamics UK</td>
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<td>1220</td>
<td>The U.S. Army’s Armoured Fighting Vehicle Roadmap</td>
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<td>- An overview of the current work and design profiles of PEO Ground Combat Systems</td>
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<td>- Short and long-term roadmaps for the Bradley, Self-Propelled Howitzer and Next Generation Combat Vehicle</td>
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<td>- Exploiting new technologies such as AI, Robotics and Directed Energy to enhance AFVs</td>
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<tr>
<td>1320</td>
<td>Networking Lunch</td>
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<td>1500</td>
<td>New Developments in the Scorpion Programme - An Innovative Risk-Reduction Approach for Three Future Major Impact Programs</td>
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<td>- Overview of the $6.7 billion Army’s Scorpion modernization program</td>
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<td>- Planned delivery of 780 Griffon multirole troop carriers and 248 units of the light multirole Jaguar combat vehicle by 2020</td>
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<td>- Upgrade of the Leclerc tank with a new battle management system, crew training with onboard 3D simulation, and maintenance</td>
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<td>- The architecture of the SCORPION armoured reconnaissance and combat vehicle JAGUAR</td>
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<td>- Lessons learned from recent operations and their impact on modernisation program</td>
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<td>1600</td>
<td>Delivering the Belgian Camo Programme</td>
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<td>- Replacing the Belgian army’s existing Piranha 3 6x6 and Dingo 2 4x4 armored vehicles with the Medium Brigade: Jaguar/Griffon vehicles will be purchased along with communications systems and spare parts</td>
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<td>- Sharing common organisational structures, training programmes, and logistical support with France</td>
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<td>1630</td>
<td>Afternoon Tea and Networking</td>
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<td>1700</td>
<td>Future Concepts for Romanian Armour</td>
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<td>- Brigadier General Jacob Dragos, Chief of Training and Doctrine Direction, Romanian Land Forces</td>
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<td>1800</td>
<td>Chairman’s Closing Remarks</td>
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<td>- General Sir Adrian Bradshaw, KCB, OBE, Deputy Supreme Allied Commander Europe (2014-2017), Conference Chairman</td>
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THE WORLD’S LARGEST DEDICATED ARMoured VEHICLE CONFERENCE

Presents the Inaugural Robotics & Autonomous Systems Focus Day

LED BY THE ROBOTICS REQUIREMENTS BRANCH, U.S. ARMY MANEUVER CENTER OF EXCELLENCE

EXPERT SPEAKER PANEL INCLUDES:

Dr Robert Sadowski,
Army Chief Roboticist, U.S. Army

Colonel Tom Nelson,
Director, Robotics Requirements, Maneuver Center of Excellence, U.S. Army

Lieutenant Colonel Richard Craig MBE,
SO1 Capability Coherence, Director Capability, Army HQ, British Army

Ted Maciuba,
Deputy Director, Robotic Requirements, Maneuver Center of Excellence, U.S. Army

www.asdevents.com - www.asdevents.com/event.asp?id=19049
Military dominance is no longer guaranteed as near-peer competitors have quietly worked to close the gap, whilst NATO and Allied partners have been preoccupied with COIN operations in the Middle East. Recognising that allied warfighters might no longer have a guaranteed technological advantage, our forces need to be better at leveraging emerging and disruptive technologies.

Near-peer competitors have taken concerted action to develop their indigenous robotics and autonomous systems, by developing long-range, precise, smart, stealthy and unmanned weapons platforms. In order for the U.S. Army and its partners to achieve overmatch with its competitors once again, the Army must seize the capability opportunities that RAS presents.

Commissioned in January, the U.S. Army- Robotics Requirements at, U.S. Army Maneuver Center Of Excellence is the newest requirements organisation in the U.S. and influences a budget of over $1 billion over the next 5 years. This focus day offers a unique opportunity to gain exclusive insight into the U.S. Army’s long term RAS strategy, the opportunity to influence, ask questions and, if you represent industry, discuss your own solutions.

Joining the U.S. Army will be a selection of authoritative RAS voices from military partners.

Why attend?

- Analyse how future forces may apply RAS technologies in conjunction with next generation doctrine and tactical formations
- Gain valuable insights and a CONOPS that will serve as the baseline for future operations in urban environments
- Understand the organisational design and capabilities of RAS and how they can support other mechanised units
- Identify the implications of RAS employment to inform concept development, capability determination and force design
- Examine the cost benefits of disposable and dispensable RAS

This is an important opportunity for both traditional and non-traditional defence industry partners to receive initial requirements information linked to the U.S. Army’s Robotics and Autonomous Systems efforts.

Please note that there are limited places for this activity.