

SMi proudly presents the 3rd annual conference on...

Future Armoured Vehicles Weapon Systems

5th & 6th June 2018

Holiday Inn Kensington Forum, London, UK

EVENT SHOW GUIDE

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SMi Group proudly presents the 4th annual conference on...



FUTURE ARMOURIED VEHICLES SURVIVABILITY

13TH-15TH NOV 2018

Copthorne Tara Hotel, London, UK

Maximising Force Protection for Mounted Personnel



2018 13TH NOVEMBER 2018: ACTIVE PROTECTION SYSTEMS FOCUS DAY

Chairman:

Mr. Tom Newbery, Principal Engineer Land Survivability, DSTL, UK MoD

New speakers include:

Major Luke Wilson, Royal Engineers, DTECH, DE&S, UK MoD

Senior Representative, APS Integration Lead, Israeli MoD

Mr. Wayne Beutler, Associate Director Ground Vehicle Survivability and Protection, TARDEC, US Army

Mr. Ulrich Fasel, Director of Engineering, BAAINBw, German MoD

Mr. Ahmet R. Yalcin, MBT Programme Manager, Pulat, SSM, Turkish MoD

Mrs. Elizabeth Miller, Deputy Product Manager Vehicle Protection Systems, Stryker brigade Combat Team, US Army

MILITARY AND GOVERNMENT EXPERTS INCLUDE:

Chaired by:

Brigadier (retd.) Ian Cameron-Mowat, Former Head of Force Protection, British Army

Brigadier General Christopher LaNeve, Commanding General 7th ATC, US Army Europe (SFC)

Lieutenant Colonel Karlheinz Boenke, Authorised Representative for MRAV BOXER and BV 206, German Army

Lieutenant Colonel Paddy Bond, Commanding Officer, Armoured trials and Development Unit, British Army

Lieutenant Colonel Brian Corbett, Survivability Lead, Canadian Army

Lieutenant Colonel Simon Routledge, SO1 Land Systems, DSTL, UK MoD

Captain Mark Hoving, FENNEK programme Manager, Royal Netherlands Army

Mr. Mark Andrews, AMPV/IFV/VPS, Manoeuvre Centre of Excellence, US Army

Mr. Falih Yalcin, Director Land Platforms, SSM, Turkish MoD

Mr. Ian Matthews, CBRN Team Leader, DE&S, UK MoD

Mr. Michael Abale, Director Engineering, Edgewood Chemical Biological Centre, US Army

Professor Bryn James, Armoured Protection Lead, DSTL, UK MoD

INDUSTRY TECHNICAL EXPERTS

Mr. Axel Scheibel, Chief of Survivability Engineering, KMW

Mr. Mark Dean, Chief of Design Engineering, General Dynamics UK Limited

Mr. Jens Schroeter, Senior Director Engineering, General Dynamics European Land Systems - Mowag

Mr. Christian Manthey Dipl. Ing., Technical Marketing Manager, UTC Aerospace Systems

Mr. Guy Davies, Capability Manager, Leonardo

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SPECIAL RATES AVAILABLE FOR MILITARY AND GOVERNMENT REPRESENTATIVES



@SMiGroupDefence #FAVsurvivability

On behalf of the SMi Group, may I extend a warm welcome to you for attending:

Future Armoured Vehicles Weapon Systems

We hope that this conference will prove of interest to you and your organisation, please read the following notes to assist you with obtaining maximum benefit from this event:

Refreshments & Lunch:

Choose from a range of freshly brewed coffee, teas, and snacks that are available during the refreshment breaks, as well as a buffet during lunch, all of which take place in your designated Exhibition/Catering Room. The Exhibition/Catering Room for this meeting is the Holliday. The conference room is the Dylan. A vegetarian option is always available, but we ask that if you have any special dietary requirements please do let us know as soon as possible so that we can make the necessary arrangements. Timings of your breaks are in the programme.

Presentations:

Presentations will be available to download 7 days after the conference, subject to the speakers' agreement. Please be assured that we always endeavour to offer a complete set of presentations, although occasionally, due to circumstances beyond SMi or our speakers' control, we are unable to do so. A guide to the portal is contained in this pack.

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We would like to thank our speakers, sponsors, supporters and delegates for joining us and hope you enjoy the conference.

Yours sincerely,

Caresse Mingo

Events Executive
The SMi Group

www.smi-online.co.uk



DAY 1

8.30 Registration & Coffee

9.00 Chairman's Opening Remarks and Keynote Address

- Drivers for change in future land requirements
 - Emerging technologies and affordability – and translating those into capabilities
 - Virtual realms and cyber threats
 - Emerging (non-state) actors and implications in the development of land systems
- Lieutenant-General (Ret'd) Jonathon Riley**, Former Deputy Commander ISAF, **British Army**

9.20 Emerging Requirements and Concepts for our Next Generation Combat Vehicle

- An overview of the current work and design profiles of PEO Ground Combat Systems
 - Maximising new weapon system effectiveness by designing them for a new vehicle instead of retrofitting into an existing platform
 - Exploiting energetics to allow heavier firepower from lighter guns
 - Driving innovation: exploring the use of automatic loaders to replace human gun crews
 - Utilising Quick Kill Active Protection Systems to develop anti-tank missile capability
 - Development priorities for the Future Fighting Vehicle and way forward
 - An overview of the current status of the Next Generation Combat Vehicle (NGCV) effort
 - The critical enabling technologies that will support cross domain manoeuvre
 - NGCV Operational View
 - The future of Manned/Unmanned Teaming and the employment of decisive lethality in the future operation environment
- Colonel James Schirmer**, Project Manager, Armored Fighting Vehicles, PEO Ground Combat Systems, **United States Army**

10.00 Successes Collaboratively Developing Mechanised Firepower Through 40mm Cased Ammunition

- Moving from the 30mm RARDEN cannon to the 40mm Cased Telescoped Armament System (CTAS)
 - Developing generic standards between the British and French Army's to integrate the 40mm CTAS within both nations platforms
 - Exploiting airburst rounds for anti-air capabilities within armoured units
 - Utilising Target Practise Reduced Round-Tracer (TPRR-T) ammunition for weapon system training
 - Collaboration priorities for the 40mm CTAS – strategic cross-channel vision.
- Lieutenant Colonel Martin French**, SO1 Lethality and 40mm CTCA Programme Manager, **British Army**
Mr. Rory Chamberlain, Business Development Manager, **CTA International, BAE Systems**

10.40 Morning Coffee

11.10 Future Combat Vehicle Technologies — The Israeli Perspective

- The Current Force
 - The need for Future Force
 - CARMEL – Technologies for the Future Combat Vehicle
- Senior Israeli MoD Representative, LT. Colonel.**

11.50 HITFACT II 105/120 mm Turret: The State of Art Solution In Terms Of Firepower And Survivability For Light Wheeled Vehicle And Medium Tank

- The origins of the Mobile Gun System
 - Main Features
 - 120-105mm Firepower
- Mr. Alessandro Tognetti**, Capture & Development Manager - Land Products, **Leonardo Defence Systems Division**

12.30 Networking Lunch

1.30 CMI Defence Lethality Suite

- CMI's recent product improvements regarding medium calibre and 105mm turrets
 - CMI's new lightweight turret offering; CPWS 2.0
 - CMI's new 120mm Compact Tank Gun Product
- Mr. Jonathan Scrabeck**, Senior Director, Product Development and Marketing, **CMI Defence**

DAY 1

- 2.10 Armored (Light) Infantry Vehicles within the German Army - Situation and Further Development of the MRVAV BOXER, light airborne platform and Oversnow-Vehicles
- An overview about the current main armored platform of the GEA light infantry, the MRVAV BOXER
 - Current roles and the way ahead in regards of further requirements and development
 - Remarks on the light airborne platform and the BV 206 Hagglands fleet and their way ahead
- Lieutenant Colonel Karl Heinz Boenke**, Team Leader, Infantry Platforms MRVAV and BOXER, **German Army**

2.50 Afternoon Tea

3.20 Designing the Future: Delivering Innovative Firepower Capabilities Through New Weapon Systems

- Developing collaboration between vendors to ensure weapon systems remain interoperable and conform to generic architecture
 - How the TEBER 30/25 medium calibre remote turret is revolutionising mechanised capability
 - Enhancing weapons testing through technical analysis of lethality outputs
 - Exploring how turret systems can be optimised to deliver improved firepower
 - Exploiting straight tube ammunition casing instead of traditional bullet shapes to deliver more explosive charge
 - Maturing R&D in anti-aerial airburst rounds for deployment against airborne targets
- Mr Oykun Eren**, Weapon Systems and Core Engineering Department Manager, **FNSS Savunma Sistemleri A.S.**

4.00 Progress on Enhancing the Abrams Main Battle Tank for the Requirements of the 21st Century

- Modernisation in context: the Abraham main battle tank within the Combat Vehicle Modernisation Strategy
 - Providing the M1 Abrams the ability to fire high-energy and smart tank ammunition through the integration of the 120mm cannon
 - Delivering BLOS (beyond line of sight) fire capability to support dismounted soldiers with overwhelming fire power
 - Exploiting new technology to accommodate the blast from the 120mm round
 - The way forward: possibilities of developing manned-unmanned teaming within operations
- Lieutenant Colonel Justin Shell**, Product Manager for Abrams Main Battle Tank, **US Army**

4.40 Chairman's Closing Remarks and Close of Day One

Lieutenant-General (Ret'd) Jonathon Riley, Former Deputy Commander ISAF, **British Army**

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DAY 2

8.45 Registration & Coffee

9.15 **Chairman's Opening Remarks**
Lieutenant-General (Ret'd) Jonathon Riley, Former Deputy Commander ISAF, **British Army**

9.30 **Canadian Army Firepower — Towards a More Lethal Mounted Close Combat Capability**

- Current Canadian Army Capability
 - Generating AFV Mounted Combat Power
 - Known Capability Gaps
 - Land Combat Systems Development Program
 - Future Lethality Equipment Projects
 - Lethality R&D Projects
- Lieutenant Colonel Brian Corbett**, Section Head - Armoured Vehicle Systems, **Canadian Armed Forces**

10.10 **Supporting Military Operational Requirements by Delivering the Next Generation of Direct Fire Ammunition for US Army Fighting Vehicles**

- The role and structure of PEO Ammunition in supporting the warfighter
 - Combat vehicle ammunition perspectives and priorities: How can the combat vehicle munitions stay ahead of red forces
 - Balancing cost with cost effective combat solutions that meet these requirements
 - Operational feedback from the development of new capabilities
 - M829A4, 5th generation 120mm kinetic energy round
 - 30mm munitions to meet upgraded Stryker Brigade needs
 - Future plans and priorities for munitions development
- Mr Tom Coradeschi**, Project Manager Maneuver Ammunition Systems, **US Army**

10.50 Morning Coffee

11.20 **In Peace Time Only Simple Things Are Possible, In War Time Not Even That**

- An overview of the CV90s current capabilities and where there is clear opportunity for growth
 - Integrating the Advanced Mortar System (AMOS) to the CV90 to provide direct fire capability
 - Exploring computerised fire control systems to maximise weapon platform effectiveness
 - Developing a modular design for weapon systems to ensure there is interoperability for future platforms
 - Technical achievements in delivering the 35/30mm cannon system within the CV9035
 - Fostering relationships with military to achieve future development priorities for the programme
- Mr Edvard Kleberg**, Sub System Manager, Weapons, **BAE Systems Hägglunds AB**

12.00 **Panel Discussion - Developing Mechanised Lethal Capability Through Technical Innovation**

- Consideration of the diverse operating domains the military works within and how this impacts vendor solution design
 - Exploring how computerised fire control systems enhancing effective ISTAR capabilities for modern mechanised units
 - Developing modular approaches to armoured vehicle ammunition systems to maximise their interoperability across allied partners
 - Working with military end-users to ensure that R&D within armoured weapon systems revolves around operational needs
 - Building a holistic collaboration between OEM's (original equipment manufacturers) and system integrators to deliver the mechanised assets of the future
- Mr Peter Brusten**, Technical Lead IFV Puma Weapon Systems, **Rheinmetall Landssysteme GmbH**
Mr Oykun Eren, Weapon Systems and Core Engineering Department Manager, **FNSS Savunma Sistemleri A.S.**
Lieutenant-General (Ret'd) Jonathon Riley, Former Deputy Commander ISAF, **British Army**
Mr Edvard Kleberg, Sub System Manager, Weapons, **BAE Systems Hägglunds AB**

12.40 Networking Lunch

DAY 2

1.40 **Panel Discussion: Developing Generic Architecture Within US Armoured Platforms to Enhance Interoperability**

- Past and present: an overview of mechanised platforms and their varying roles and functions
 - Streamlining armoured target acquisition by exploiting common optronics within vehicle systems
 - Considerations for future platforms and life extension programmes to develop lethality
 - Utilising generic vehicle architecture for 'plug and play' weapon platforms that maximise vehicle utility
 - What lies ahead? Future priorities for land strike capability
- Lieutenant-General (Ret'd) Jonathon Riley**, Former Deputy Commander ISAF, **British Army**
Lieutenant Colonel Justin Shell, Product Manager for Abrams Main Battle Tank, **US Army**
Lieutenant Colonel Karl Heinz Boenke, Team Leader, Infantry Platforms MRV and BOXER, **German Army**
Lieutenant Colonel Brian Corbett, Section Head - Armoured Vehicle Systems, **Canadian Armed Forces**
Colonel James Schirmer, Project Manager, Armored Fighting Vehicles, PEO Ground Combat Systems, **United States Army**

2.20 **Considerations on Future System Architectures for Integrated Weapon Systems**

- Impact of UGV adoption on WS functional, operational, and safety & security requirements
 - Shared platform architectures for WS and non-WS co-operation and integration
 - Automotive ADAS and supporting technologies for enhanced WS sensor operation
 - Autonomous platform mobility control/intervention for enhanced WS effectiveness and survivability
- Dr Periklis Charchalakis**, Technical Manager, **Vetronics Research Centre**

3.00 **Chairman's Closing Remarks**
Lieutenant-General (Ret'd) Jonathon Riley, Former Deputy Commander ISAF, **British Army**

3.15 Afternoon Tea

3.45 Close of Conference

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