DISRUPTIVE TECHNOLOGY FOR DEFENCE TRANSFORMATION

ACCELERATING ACQUISITION FOR MACHINE-SPEED WARFARE

IN PARTNERSHIP WITH:

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INTRODUCING THE CONFERENCE CHAIRMAN

General Sir Richard Barrons, Former Commander Joint Forces Command (2013-2016) General Sir Richard Barrons, KCB, CBE, (born 17 May 1959) is a former British Army officer. He was Commander Joint Forces Command from April 2013 until he stepped down in April 2016. He had previously been the Assistant Chief of the General

AGENDA AT A GLANCE

MAIN CONFERENCE DAY ONE | 24 SEPTEMBER
WINNING THE ADVANTAGE IN THE DIGITAL AGE

- The Transformation Imperative – posturing armed forces for operations in the Digital Age
- The manned/unmanned/autonomous mix on land, at sea, in the air and in space
- Autonomy for decision-support: human-machine teaming for future coalition operations
- Advancing soft power and intelligence exploitation to win in Hybrid Confrontation and Conflict
- Synchronising effects across multiple domains and developing a precise, responsive, deep strike capability
- Single Synthetic Training Environment: establishing high fidelity simulation for multi-domain training and wargaming

MAIN CONFERENCE DAY TWO | 25 SEPTEMBER
JOINT FORCE DESIGN: TRANSFORMING HARD AND SOFT POWER

- Modernising, mobilising, transforming capability: applying disruptive innovation to contemporary challenges
- Gaining the information advantage: Joint and Combined Force C4I in the Digital Age
- Cloud Strategy: Assessing how to organise, analyse, secure, scale, and, capitalise on critical information to make timely, data-driven decisions
- Acquisition in the digital age: maintaining momentum and prototyping to transition leader-approved capability requirements to the procurement system

INNOVATION FOCUS DAY | 26 SEPTEMBER

- Digitising the future force and exploiting AI/ML enabled technology to retain superiority against rapidly morphing threats
- Leveraging innovation through experimentation and prototyping
- Technological Innovation Workshop: jHub's model for delivering innovation to the Warfighter
- Acquisition Workshop: UK DSC interactive session on accelerating procurement for hybrid confrontation
- AI/ML Workshop: UK Defence Academy Technology School - assessing the role of AI/ML -enabled technologies

"Very valuable insights into innovation in military thinking"
Dr. Tom Killion, Chief Scientist, NATO

"Relevant, extremely important, fruitful. Met my expectations"
Gen. Mirko Sundov, CHOD, Croatia Armed Forces

CONFIRMED SPEAKERS

Sir Simon Bollom, Chief Executive, **DE&S**

Lieutenant General Ferenc Korom, Commander, **Hungarian Defence Forces**

Air Marshal Edward Stringer CB CBE MA BEng RAF, Director General Joint Force Development, **UK JFC**

Lieutenant General James R. Hockenhull OBE, Chief of Defence Intelligence, **UK MoD**

Air Marshal (Ret'd) Sir Graham Stacey KBE CB, Former Chief of Staff, **NATO Allied Command Transformation**

Air Marshal (Ret'd) Sir Christopher Harper, Former Director General, **NATO International Staff**

Major General Rob Magowan CB CBE, Assistant Chief of Defence Staff (Capability & Force Design), **UK MoD**

Major General Tom Copinger-Symes CBE, Director Military Digitisation, **UK JFC**

Major General William F. Mullen, Commanding General, Training and Education Command, **US Marine Corps**

Rear Admiral Naoya Hoshi, Deputy Director General (Naval Systems), **Japanese Defence Force**

Rear Admiral Andy Burns OBE, Commander UK Maritime Strike Force & Rear Admiral Surface Ships, **Royal Navy**

Rear Admiral John F Meier, Incoming Commander, Navy Warfare Development Command, **US Navy**

Brigadier Frazer Michael Lawrence OBE QCVS, Head of Warfare Development, Directorate Joint Warfare, **UK JFC**

Brigadier General Dionigi Loria, Director National Supply Centre, **Italian Army**

Air Commodore Tim Neal-Hopes, Head of Joint C4ISR & Cyber, **UK JFC**

Commodore Ian Annett, CIO and ACOS Information Warfare, **Royal Navy**

Colonel Dan Cheesman, Chief Technology Officer, **Royal Navy**

Colonel Claudio Icardi, Deputy Director, **Italian Defence Innovation Centre**

James Arroyo, Director, **Ditchley Foundation**

David Tagg-Oram, Artificsial Intelligence & Data Programme Director, **Royal Navy**

Pete Williams, Head, **jHub**

Adrian Holt, Innovation Scout, **jHub**

Andrew Cunningham, Executive Director – Innovation, **UK Defence Solutions Centre**

Arnel David, SO1 Strategic Analysis Branch, Special Assistant to the Chief of the General Staff, **US Army**

Melanie Rovery, Editor UGVs, **Jane's**

Ed Greig, Chief Disrupter, **Deloitte**

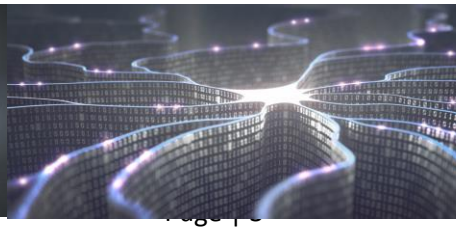
Bill Biggs, Autonomy Portfolio Lead, **QinetiQ**

Adrian Friend, Head of Defence, National Security & Public Safety, **Esri UK**

Professor Mart Noorma, Science and Development Director, **Milrem Robotics**

Alexander Gounares, CEO, **Polyverse Corporation**



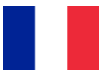
MAIN CONFERENCE DAY ONE | 24SEPTEMBER WINNING THE ADVANTAGE IN THE DIGITAL AGE	
0800	**REGISTRATION & COFFEE**
0845	**CHAIRMAN'S OPENING REMARKS** **General Sir Richard Barrons,** Former Commander Joint Forces Command (2013-2016)
0900 	**UK DEFENCE INTELLIGENCE POLICY AND OPERATIONS** • Information as an Enabler and Effector • Reforming intelligence and exploiting the cyber and space domains • Transforming into data-centric organisations and evaluating implications on the workforce • Exploiting technological advancements and collaborating with industry to retain information superiority in the Digital Age • Delivering information advantage through actions on an adversary's understanding, physical capability, will and cohesion **Lieutenant General James R. Hockenhull OBE**, Chief of Defence Intelligence, **UK MoD**
0930 	**FALLING IN LOVE WITH THE PROBLEM, NOT WITH THE SOLUTION** • How to navigate the current wave of disruptive technological change • The importance of a tangible hypothesis and user centred design • Thinking big, starting small, testing often and scaling fast **Ed Greig**, Chief Disrupter, **Deloitte** Deloitte.
1000 	**HOW TO TACKLE CHALLENGES AND OPPORTUNITIES? THE HUNGARIAN DEFENCE CAPABILITY TRANSFORMATION** • What is the Hungarian Defence Capability Transformation? • Why we have launched the Capability Transformation? • Challenges HDF face • Opportunities HDF intends to exploit • How do we implement the program? **Lieutenant General Ferenc Korom**, Commander, **Hungarian Defence Forces**
1030	**NEW OPERATIONAL DEFENSE CAPABILITY'S TRIAD (ELECTRO MAGNETIC, CYBER, SPACE REALM)** • Overview of the evolving security environment and regional defence and security dynamics • Transforming ISR to enhance PED of intelligence and discern actionable intelligence more rapidly • Modernising computing systems to access, retrieve, manipulate, merge, analyse, and visualize data at machine speed • Addressing cyber challenges proactively in line with the cross-domain concept • Nexus of Electro Magnetic, Cyber and Space field for information advantage **Rear Admiral Naoya Hoshi**, Deputy Director General (Naval Systems), **Japanese Defence Force**
1100	**MORNING COFFEE AND NETWORKING**
	HUMAN-MACHINE TEAMING AND AUTOMATION
1130	**UNLOCKING HUMAN MACHINE TEAMING – THE POWER OF THE PROTOTYPE** • The need for a new approach: Prototype Warfare • Forcing the pace with bold new concepts and collaborative prototypes & experimentation • A focus on integrated capabilities and information advantage **Bill Biggs**, Autonomy Portfolio Lead, **QinetiQ** QINETIQ
1200 	**TRANSFORMING MARITIME OPERATIONS** • Developing capabilities against advanced precision munitions and information capabilities that can deny access or freedom of action within the maritime commons • Instituting a fleet-centric and coalition approach to future naval warfare • Focusing on a decentralized approach to command and control, integration of lethal and non-lethal fires, and physical and spectral manoeuvre • Considering the implications of distributed or concentrated formations **Rear Admiral John F Meier**, Incoming Commander, Navy Warfare Development Command, **US Navy**
1230	**MILREM ROBOTICS PERSPECTIVE** • Overview of the Autonomous Warrior Exercise and lessons learned • Bringing disruption to the battlefield through Robotic Warfare Systems • Advancing multi-mission unmanned vehicles for the increasingly complex operating environment in the land domain **Professor Mart Noorma**, Science and Development Director, **Milrem Robotics** MILREM ROBOTICS
1300	**PANEL DISCUSSION: HUMAN-MACHINE TEAMING FOR THE LAND DOMAIN** • How will unmanned platforms and RAS transform the battlefield? • What are your current experimentation and prototyping initiatives to advance multi-mission UGVs? • What are the main challenges associated with fielding UGVs in the near-term? • How will software support the creation of a common operating environment and the integration of UGVs into force structure? • What are the challenges of advancing information integration across a GVA? How can militaries advance AI and data analytics to support human-machine teaming? • How can industry support efforts to accelerate delivery of unmanned and autonomous technologies?

	**Moderator:** **Melanie Rovery**, Editor UGVs, **Jane's**
1330	**NETWORKING LUNCH**
1430 	**DEVELOPING THE STE AND STREAMLINING ACQUISITION** • Improving home-station training capability through simulation to increase proficiency • Overcoming limited training functionality and developing MCSTE LVC • Creating an enterprise architecture and common software tools for the planning, preparation, control and evaluation of distributed training events to reduce the time required to set up and conduct exercises **Major General William F. Mullen**, Commanding General, Training and Education Command, **US Marine Corps**
1500 	**HOW A SINGLE SYNTHETIC ENVIRONMENT TRANSFORMS C2, TRAINING, PLANNING AND EXPERIMENTATION** • Pursuing MILTECH and exploiting the potential of simulation for decision support • Developing interoperable, accessible and deployable synthetic environment to support decision making at all levels of warfare • Enhancing Ingestion of real time intelligence to provide course of action analysis faster than real time in both the planning and execution of operations • Allowing commanders to visualise, simulate and interact with highly complex problems prior to informing agile real-world decision making • Informing agile real-world decision making and hosting test and evaluation; war gaming; and mission rehearsal activity **Brigadier Frazer Michael Lawrence OBE QCVS**, Head of Warfare Development, Directorate Joint Warfare, **UK JFC**
1530 	**CREATING A SINGLE SYNTHETIC TRAINING ENVIRONMENT FOR MULTI-DOMAIN OPERATIONS** • Modeling training in the context of future multi-domain operations. How can we facilitate experimentation to augment the value of synthetic training? • How can we leverage technologies of the future to deliver next-generation training? What role will VR and AR have in wargaming? • How can we improve the linkage of synthetic mission training systems and simulator networks to enable multi-entry and multi-location training exercises? • How can we enhance delivery of high-fidelity simulations and provide the Warfighter the opportunity to exercise all Warfighting Functions across the full Operational Environment? **Moderator:** **Air Marshal (Ret'd) Sir Christopher Harper KBE**, Former Director General, **NATO International Staff** **Panelists:** **Major General William F. Mullen**, Commanding General, Training and Education Command, **US Marine Corps** **Brigadier Frazer Michael Lawrence OBE QCVS**, Head of Warfare Development, Directorate Joint Warfare, **UK JFC** **James Kidner,** Director of Partnerships, **Improbable**
1615	**AFTERNOON TEA AND NETWORKING**
1645	**SEE WHAT OTHERS CAN'T** • Providing a common context and framework to futureproof transformation • Creating clarity from complexity to generate advantage from information • Automating analysis to support decision-making at the speed-of-relevance **Adrian Friend**, Head of Defence, National Security & Public Safety, **Esri UK**
1715 	**CLOSING KEYNOTE: DEVELOPING MILITARY CAPABILITY IN THE INFORMATION AGE'** • Pursuing a five domain approach: rapidly incorporating space and cyberspace as domains of operation to protect critical networks and national infrastructure • Gaining and retaining the information advantage through effective collection, analysis and dissemination of vast quantities of data • Facilitating prototyping and experimentation in artificial intelligence, machine-learning, man-machine teaming and automation to deliver the needed disruptive effects **Major General Rob Magowan CB CBE**, Assistant Chief of the Defence Staff (Capability and Force Design), **UK MoD**
1745	**CHAIRMAN'S CLOSING REMARKS AND END OF CONFERENCE DAY ONE** **General Sir Richard Barrons,** Former Commander Joint Forces Command (2013-2016)
1800	**CONFERENCE DRINKS RECEPTION**

MAIN CONFERENCE DAY TWO | 25 SEPTEMBER ACQUISITION FOR MACHINE-SPEED WARFARE	
0800	**REGISTRATION & COFFEE**
0845	**CHAIRMAN'S OPENING REMARKS:** **General Sir Richard Barrons,** Former Commander Joint Forces Command (2013-2016)
0900 	**PROCUREMENT IN THE DIGITAL AGE** • Identifying the roadmap for capability development : Modernise, Mobilise, Transform • Exploring advantages of disruptive innovation and pursuing the transformation imperative • Mobilise: making the most of existing resources to augment lethality and to better protect security • Modernise: exploiting opportunities offered by modern technology to ensure retain strategic military advantage • Investing in a range of new 'Spearhead' innovation programmes to apply cutting-edge technologies to contemporary challenges • Transform: maintaining momentum on strengthening and modernising defence, creating financial headroom for modernisation and sustaining strategic advantage in a fast changing world by using modern business practices **Sir Simon Bollom**, Chief Executive, **DE&S**
0930	**CYBERSECURITY IS NOT A TECHNOLOGY PROBLEM, IT'S AN ECONOMIC ONE** • The vulnerability of a monoculture • Fundamentally solving cybersecurity • One click solutions available today **Alexander Gounares**, CEO, **Polyverse Corporation**
1000 	**DIGITAL TRANSFORMATION** • Creating a digital information network for the joint force • Providing critical advice on digitisation for force development: assessing risks and opportunities • Evaluating behaviours, required cultures, benefits of digitisation for the armed forces • Assessing wider disruption and evolving collaboration with industry to field innovation **Major General Tom Copinger-Symes CBE**, Director Military Digitisation, **UK JFC**
1030	**MORNING COFFEE AND NETWORKING**
1100 	**CYBER STRATEGY AND INFORMATION OPERATIONS** • Understanding cyber domain convergence of intelligence, signals and Electronic Warfare (EW) • The advantages of integration: creating complete visibility at all command levels • Outlining steps towards information warfare dominance • Evaluating risks and opportunities of digitisation **Air Commodore Tim Neal-Hopes,** Head of Joint C4ISR & Cyber, **UK JFC**
1130	**ADVANTAGE THROUGH INNOVATION: JHUB'S MODEL** • Assessing jHub's role in sourcing world-class technology and talent and connect ing them to military users • Evaluating effective funding and acceleration of pilots • Leveraging successful pilots to the the JFC Innovation Board to make strategic procurement and delivery decisions • Delivering capability into the hands of the user • Developing a balance between brevity and clarity in setting capability requirements **Pete Williams,** Head, **jHub**
1145	**DEVELOPING SOLUTIONS THROUGH EFFECTIVE COLLABORATION** • Enhancing collaboration within the UK value chain and stimulating innovation from a wide array of solution-providers • Creating competitive environments to ensure that leading-edge capabilities are delivered to the armed forces • Catalysing innovation collaboration by connecting technology developers with defence customers • Adapting commercial technologies for defence applications • Facilitating international partnerships to stimulate collaborative experimentation **Andrew Cunningham**, Executive Director – Innovation, **UK Defence Solutions Centre**
1200 	**ROYAL NAVY AND THE PACE OF CHANGE** • Evaluating lessons learned from the Unmanned Warrior, Commando Warrior and Information Warrior exercises • Harnessing dynamic, cutting-edge equipment at speed to outpace competitors and keep pace with technological development • Transforming the way the RN procures technology and creating an environment which stimulates joint experimentation and prototyping between industry, military, and academia **Colonel Dan Cheesman,** CTO, **Royal Navy**
1230	**NETWORKING LUNCH**
1330	**INTERACTIVE DISCUSSION GROUPS**
	Each roundtable will invite 10-15 participants to discuss the proposed topic. Round table leaders will be asked to summarise key points and report them to the conference organisers to publicise among the online community.

	1: FUTURE JOINT FORCE DESIGN: WHAT CAPABILITIES WILL BE FIELDED FIRST? *This round table will explore capability transformation at the joint level – assessing the impact of joint enablers and MILTECH on future force structure. It will invite participants to generate ideas and consider which technologies will be delivered and adopted first. The interactive discussion will run under the premise that there are no budgetary constraints to allow for creativity and wider exploration of the art of the possible in military capability.* **General Sir Richard Barrons,** Former Commander Joint Forces Command (2013-2016)	**2: AGILE ACQUISITION FOR MACHINE-SPEED WARFARE** *The interactive discussion will offer attendees the opportunity to examine different procurement models and approaches to infusing innovation into force structure. It will challenge the traditional bureaucratic procedures and assess the role of experimentation and prototyping in speeding up the delivery of capability to the Warfighter. The round table will examine case studies and the feasibility of smaller R&D budgets to drive innovation and will address commercial technologies and their integration into the defence enterprise.* **Adrian Holt**, Innovation Scout, **jHub**	**3: ARTIFICIAL INTELLIGENCE & MACHINE LEARNING: C4ISR APPLICATIONS** *There is a lack of clarity on the current requirements, as armed forces have limited experience with AI/ML technology and its defence applications. This round table will explore collaborative experimentation with industry to implement networked solutions, overcome certification and interoperability challenges, and create a common open architecture for future operations. Addressing real-time imaging and data visualisation, the round table will address accelerated decision-making and C2 in the Digital Age.*
	4: GENERATING ACTIONABLE INTELLIGENCE FROM AI *AI is the buzzword of the day and will be raised in many of the other roundtable discussions. This roundtable aims to cut through the hyperbole and focus on how AI supports and enhances human ways of thinking and working. As humans we rely on language to communicate, understand information and help us make decisions. For a machine to deliver valuable insights, the AI needs to incorporate both human language and machine generated data. How might AI transform the traditional OODA loop to help generate truly dynamic and actionable intelligence?* **Jason Atlas**, CTO, **Adarga**	**5: ROBOTICS & AUTONOMY** *Unmanned and autonomous platforms are the future. The question remains how to integrate unmanned assets with legacy platforms, ensure effective information integration, manoeuvre, while adhering to safety regulations and AI certification. This round table aims to explore the future of remotely-piloted and autonomous technologies and the challenges associated with fielding them. It will invite participants to discuss unmanned payloads, autonomous PNT, and the role of the human in the OODA loop.* **Professor Mart Noorma**, Science and Development Director, **Milrem Robotics**	**6: VR/AR, SIMULATION, AND WARGAMING** *Armed forces need to retain high readiness for multi-domain operations. The training framework needs to support wargaming and readiness for high-intensity operations. Developing a single interconnected training system with high-fidelity simulation will be key to enhancing overall readiness for battle in complex operational environments. This round table will scrutinize the SSE/STE and assess AR/VR potential.* **Air Marshal (Ret'd) Sir Christopher Harper KBE**, Former Director General, **NATO International Staff**
	7: OFFENSIVE CYBER STRATEGY *Information operations and exploitation of social media influence for hybrid confrontation will be the main focus of this round table. While it is increasingly significant to minimise network vulnerability and enhance malware detection, developing offensive capability is essential to retain superiority against competitors in the grey zone.*	**8: SOLDIER LETHALITY** *Tactical advantage remains significant, requiring greater situational awareness, lethality, mobility, and survivability at the lowest echelon. Building land capability for future, dispersed operations will depend on individual Soldier performance. This round table will address dismounted technologies and methods to equip the modern Soldier for urban operations and engagement with near-peer threats.*	**9: BLOCKHAIN APPLICATIONS FOR DEFENCE** *This interactive discussion will offer attendees the opportunity to better understand Blockchain and its applications within Defence. It will run through proof of concepts that have been developed within Defence and also relevant use cases being investigated by industry. The round table will examine these case studies to identify potential Blockchain applications in the attendee's area of Defence. The feasibility of these potential use cases will be assessed, investigating the value they could create and requirements for implementation.* **Mike Davies,** Blockchain Expert, **PA Consulting**
	10: THE FUTURE OF SPACE-BASED CAPABILITY *Militaries now recognise space and cyber as separate operational domains. The rapid development and proliferation of space technology, led by a vibrant and diverse global industry, gives NATO and its partners new opportunities to enhance their individual and collective space capabilities. This round table will scrutinise the role of space assets in multi-domain operations and facilitate discussion around ways to enhance allied space resilience, intelligence and decision-making in support of global security objectives.*	**11: NETWORK RESILIENCE** *Ensuring seamless connectivity in congested and contested environments is integral to combat effectiveness. As dispersed operations stretch communications to the breaking point, armed forces require newer and more sophisticated solutions. It is now timely to integrate common operating environments and work to advance information maneuverability to support operations in increasingly information-dominated battlespaces.* **Lieutenant Colonel Arnel David (US Army)**, SO1 Strategic Analysis Branch Special Assistant to the Chief of the General Staff, **British Army**	**12: BIG DATA ANALYTICS** *As the volume, variety, velocity, and veracity of data is rapidly evolving, militaries require big data analytics to accelerate complex decision-making. Developing algorithms for the extraction of actionable intelligence will be crucial to winning in hybrid warfare, and staying a step ahead of adversaries. Turning fused and synthesised information into intelligence has to be achieved, however how will armed forces move away from their inherent slowness in the acquisition of MILTECH, blockchain, and big data solutions?*
	13: INNOVATION AND FUTURE MARITIME CAPABILITY	**14: INNOVATION AND FUTURE LAND CAPABILITY**	**15: INNOVATION AND FUTURE AIR CAPABILITY**

	Unmanned and autonomous capability in the maritime sector is promising – allowing for dispersed lethality and persistent presence in areas of maritime responsibility. As competitors are building capability, NATO navies and partners cannot afford to lag behind. Apart from the MUM-T concept, what disruptive technologies will be employed to retain the information advantage and reinforce naval presence? **Colonel Dan Cheesman,** CTO, **Royal Navy**	*The land domain is an intrinsically more complex operating environment than the airspace, with austere terrains aggravating the fog of war. This round table will focus on optionally manned, unmanned, and autonomous UGVs and UASs and their role in future operations. Assessing current experimentation, it will delve into the challenges of information integration and the implementation of interoperable software for unmanned platforms.*	*Implementing RPAs, integrating human-machine teaming, and enhancing stealth and lethality of platforms is desirable. This round table will explore capability development in air and space, focusing on the roadmap for development of 6th generation aircraft.*
1430	**AFTERNOON TEA AND NETWORKING**		
1500 	**WINNING IN HYBRID CONFRONTATION AND CONFLICT** • Analysing hostile disinformation activities, information warfare strategies, and their countermeasures • Building soft power to adapt capability for hybrid confrontation • Assessing the role of technology in enabling influence and disruption in the cognitive domain • Exploiting the potential of data, connectivity, and AI in offensive cyber and skilled social media activity **James Arroyo**, Director, **Ditchley Foundation**		
1530 	**CLOSING KEYNOTE: PLANNING, FUNDING AND DELIVERING DEFENCE AND SECURITY TRANSFORMATION IN THE DIGITAL AGE** • The Transformation Imperative: ensuring modernisation to retain advantage in the Digital Age • Posturing the armed forces for the future operating environment • Planning, funding, delivering capability to the modern Warfighter **Air Marshal Edward Stringer CB CBE MA BEng RAF**, Director General Joint Force Development, **UK JFC**		
1600	**CHAIRMAN'S CLOSING REMARKS AND END OF CONFERENCE DAY TWO** **General Sir Richard Barrons,** Former Commander Joint Forces Command (2013-2016)		

INNOVATION FOCUS DAY | 26SEPTEMBER LEVERAGING INNOVATION TO DIGITISE THE FUTURE FORCE	
0800	**REGISTRATION & COFFEE**
0845	**CHAIRMAN'S OPENING REMARKS:** **Air Marshal (Ret'd) Sir Graham Stacey KBE CB**, Former Chief of Staff, **NATO Allied Command Transformation**
0900 	**THE MANNED, UNMANNED AND AUTONOMOUS MIX IN THE MARITIME ENVIRONMENT** • Fast-tracking new projects to accelerate procurement and delivery of innovative technologies to the modern Warfighter • Developing autonomous mine-hunters to minimise human risk and enhance capability against underwater threats • Overhauling traditional procurement mentality and infusing latest technology into RN force structure, streamlining R&D initiatives **Rear Admiral Andy Burns OBE,** Commander UK Maritime Strike Force & Rear Admiral Surface Ships, **Royal Navy**
0930 	**PROGRAMME NELSON: CREATING A BIG DATA PLATFORM** • Exploiting advanced data analytics and AI in the Royal Navy • Overview of lessons learned from Exercise Information Warrior • Delivering a common maritime big-data platform to be used across the entire fleet • Increasing effectiveness of analytical applications and infusing consistency into data standards • Enabling the warships to access and analyse real-time data from a single virtualised hub **Commodore Ian Annett**, CIO and ACOS Information Warfare, **Royal Navy** **David Tagg-Oram**, Artificial Intelligence & Data Programme Director, **Royal Navy**
1000	**MORNING COFFEE AND NETWORKING**
1030 	**FORZA NET: ITALIAN ARMY'S APPROACH TO DIGITISATION** • Outlining the 'Forza Nec' experimentation programme • Conducting net-centric operations with industrial partners to enhance interoperability • Adapting to the Age of Information Communication Technology through digitisation **Brigadier General Dionigi Loria**, Director National Supply Centre, **Italian Army**
1100 	**INNOVATION IN THE NEAR TERM: A FRENCH ARMY PERSPECTIVE** • Lessons learned from the recent UGVs and robotics experiment • Assessing short-term innovation and collaboration with start-ups to deliver disruptive technologies to the Warfighter at speed • Enriching analysis of innovation through experimentation and prototyping **Colonel Sébastien de Peyret**, Director of Army Battle Lab, **French Army**
1130 	**INNOVATING THE JOINT FORCE** • Concept development for future operations • Current prototyping, experimentation, and piloting for the future force • Evolving cooperation with industry to procure game-changing technology at speed **Colonel Claudio Icardi,** Deputy Director, **Italian Defence Innovation Centre**
1200	**NETWORKING LUNCH**
1330	**WORKSHOP A: TECHNOLOGICAL INNOVATION WORKSHOP: JHUB'S MODEL FOR DELIVERING INNOVATION TO THE WARFIGHTER** Using the jHub model as a framework, delegates will be invited to explore their understanding of building and running effective innovation systems within established business. The session will then examine the learnings from the jHub's first 2 years to identify ways that the model could be improved, scaled or replicated. This interactive workshop builds on the jHub session from day 2 to give delegates a better understanding of Joint Force Command's transformation imperative. **Adrian Holt**, Innovation Scout, **jHub** **ABOUT JHUB:** jHub is the Innovation centre for UK Joint Forces Command, seeking innovation and technology to enhance and improve the operation of the UK armed forces. The jHub team aims to find world class technology and talent and get them into the hands of the Joint Force Command user. jHub also works closely with international defence organisations, the UK government, trade organisations, academia and other bodies which seek to encourage innovation in the UK. jHub looks to repurpose high Technical Readiness Level (TRL) technology from areas not traditionally with a defence focus, to provide software, hardware or to solve a process or people issue. jHub works with the 7 organisations within JFC to identify problems, such as capability gaps or areas for improvement. Industry is then invited to submit their solutions in the form of a proposal. Utilising a traditional funnel design, jHub then works to a 4 stage process: Rapid evaluation, Opportunity assessment, Pilot, presentation to the JFC Innovation Board **Attend the Workshop to:** • Learn how your solution can be tailored for the defence enterprise by directly engaging with the JFC's department for innovation, development of partnership, and agile acquisition • Identify current R&D priorities, emerging requirements to formulate winning business proposals to the UK MoD

	• Enhance your understanding of JFC's innovation model, ways to pilot, and field technology to the hands of the user • Transform ISR and advance hard and soft power for hybrid warfare by leveraging innovation and learning how to accelerate procurement from non-traditional defence suppliers Receive exclusive feedback from JFC on you are able to compete successfully for UK MoD contracts
1430	**AFTERNOON TEA AND NETWORKING**
1500	**WORKSHOP B:UK DSC INTERACTIVE SESSION ON ACCELERATING INNOVATION** Cooperation between armed forces, defence industry, non-traditional defence companies, academia, and R&D organisations is critical for the transformation of capability for the Digital Age. UK DSC is the world's first approach to collaboration in defence solutions, which helps align UK defence industry with the UK government, and stimulates innovation and investment from a wide array of solution-providers. The session will enhance your understanding of the ways in which the UK MoD approaches innovation and the role the UKDSC plays in leveraging innovative technologies and facilitating experimentation. By providing case studies, the workshop will explore ways to catalyse innovation and bridge the valley of death. It will explicate the UKDSC model and methods to connect technology developers with defence customers to help increase the potential for end-user exploitation and achieve higher-impact scalable innovations. **Andrew Cunningham**, Executive Director – Innovation, **UK Defence Solutions Centre** **ABOUT UKDCS** UKDSC is an established, independent partnership between the UK Government and the UK Defence Industry. It harnesses the best of UK capability to develop strong capabilities in the business of defence. UKDSC's vision: • To be recognised as a trusted and impartial centre of defence expertise in the pre-competitive phase, displaying innovation to help shape and satisfy customers' defence needs and to promote the development of UK defence industrial capability • To strengthen the defence sectors' performance through partnering, contributing to the security and the prosperity of our Customers and the UK **Attend the Workshop to:** • Improve your collaboration with the UK customer and enhance your understanding around ways to build business partnerships with the UK MoD • Demonstrate how you can support the UK customer's transformation imperative • Learn how to overcome the valley of death and develop winning business proposals to armed forces decision-makers
1600	**CHAIRMAN'S CLOSING REMARKS AND END OF CONFERENCE** **Air Marshal (Ret'd) Sir Graham Stacey KBE CB**, Former Chief of Staff, **NATO Allied Command Transformation**