



NORTH ATLANTIC TREATY ORGANISATION
ORGANISATION DU TRAITÉ DE L'ATLANTIQUE NORD



**16th NATO OPERATIONS RESEARCH AND ANALYSIS
CONFERENCE
17-19 October 2022**

Conference Programme + Site Plan (**Change 1**)
(All Times are CEST, GMT+2)

Room # 1 (Plenary room) – WEBEX

Meeting link: <https://natosto.webex.com/natosto/j.php?MTID=m0ee019a378b469393563f34a0b9a9e25>

Meeting number: 2740 798 9170 / Password: STOParis

Time	Sunday 16 October 2022
1700-1900	Pre-registration at Hotel Scandic Falkoner

Time	Day 1, Monday 17 October 2022
0800	Bus departure from Hotel Scandic Falkoner
0830-0900	Arrival, Registration and Setup
0900-0905	Opening remarks (plenary) <ul style="list-style-type: none">• Mr. Dale Reding, Conference Co-Chair, NATO STO Office of the Chief Scientist• Ms. Sue Collins, Conference Co-Chair, NATO Allied Command Transformation
0905-0910	Host Nation welcome: Rear Admiral Henrik Ryberg, Chief of the Danish Defence College (plenary)
0910-0930	Conference opening: Dr. Bryan Wells, NATO Chief Scientist (plenary) - virtual
0930-1030	Keynote 1: Dr. Susanne Wirwille, National Security Analysis Department, John Hopkins University (plenary)
1030-1100	Health Break

1100-1230	<p>Room #1 (Plenary room) - Stream – Cognitive Superiority #1 – Lead Dr. Janis Berzins / Ms. Chiara Rylander</p> <ol style="list-style-type: none"> 1) Delegating decision making about communication in dispersed operations – Ms. Lotte Konings (NLD) 2) A methodology to create a measurement framework for intelligence organizations - Ir. Titia Kuipers (NLD)
	<p>Room #2 - Stream – Artificial Intelligence / Machine Learning #1 – Lead Prof. Dick Deckro / Mr. Jan Frelin</p> <ol style="list-style-type: none"> 1) Zero-shot Multimodal Deep Learning Models for Military Vehicle Detection – An Analysis - Mr. Fabian Deuser (DEU) 2) Online Adversarial Detection for Assured Decision Making - Dr. Ghataoura Darminder (GBR) 3) Using Reinforcement Learning to provide decision support in multi-domain mass evacuation operations - Mr. Mark Rempel (CAN)
	<p>Room #3 - Stream – Modelling & Simulation – Lead Dr. Etienne Vincent / Mr. Andrew Bell</p> <ol style="list-style-type: none"> 1) Integrating additive manufacturing to support temporarily self-sufficient systems - CptLt Sascha Hartig (DEU) 2) Modelling Uncertainty in Military Ship-to-Shore Operations: A Simulation Study - Ms. Mette Wagenvoort (NLD) 3) Enhancing Resilience: Model-based Simulations - Dr. Kancs d'Artis (LVA)
1230-1400	Lunch Break
1400-1530	<p>Room #1 (Plenary room) – Cognitive Superiority and Layered Resilience – Dr. Gitanjali Adlakha-Hutcheon (CAN), Prof. David Chandler (GBR), Dr. Caterina Cinel (GBR), Dr. Igor Linkov (USA)</p>
	<p>Room #2 – Wargame Tutorial: Resilience Wargaming" Dr Robert Burks (USA) and Dr Jeff Appleget (USA)</p>
1530-1600	Health Break
1600-1730	<p>Room #1 (Plenary room) - Stream – Big Data / Advanced Analytics – Lead Ms. Sylvie Martel / Mr. Conrad Grant</p> <ol style="list-style-type: none"> 1) Exploratory and Predictive Analytics of one of NATO’s Oldest Datasets: the Common Funded Resources Data Repository - Ms. Louise Hoehl (GBR) 2) Summary Linguistic ANalysis Guide (SLANG) - Ms. Julia Haines (USA) - <i>virtual</i> 3) Transforming Data Analytics in the USAF - Ms. Sarah Green (USA) - <i>virtual</i>
	<p>Room #2 - Stream – Wargaming – Lead Ms. Sue Collins / Mr. Stein Malerud</p> <ol style="list-style-type: none"> 1) “Hybrid Threat Rising” Tabletop Wargame Case Study – Prof. Altan Ozkil (TUR) 2) Assessing Future Options for Solving the Current Challenge of A2AD - Mr. Andrew Wind (CAN) 3) A study of logistics and rear area force protection for HQ ARRC – Ms. Elizabeth Copsey (GBR)

	Room #3 - Stream – Integrated Multi-Domain Defence & Cross-Domain Command – Lead Dr. Andreas Graae / Mr. Angelo De Lucia 1) Modelling Multi-Domain Conflict – Conceptualizing ‘War 2.0’ - Dr. Scott Keith (GBR) 2) The Inventory Decision Support Process for Aircraft Inventory Management – Dr. David Doll (USA)
1730-1900	Ice Breaker
1915	Bus departure to Hotel Scandic Falkoner

Time	Day 2, Tuesday 18 October 2022
0800	Bus departure from Hotel Scandic Falkoner
0830-0900	Arrival, Registration and Setup
0900-0910	Opening remarks (plenary) <ul style="list-style-type: none"> • Mr. Dale Reding, Conference Co-Chair, NATO STO Office of the Chief Scientist • Ms. Sue Collins, Conference Co-Chair, NATO Allied Command Transformation
0910-0920	Conference opening (plenary) : Colonel Matthieu Ponin-Ballom, Branch Head Operational Analysis, NATO HQ Supreme Allied Commander Transformation
0930-1030	Room #1 (Plenary room) - Stream – Cognitive Superiority #2 – Lead Ms. Sue Collins / LTC Juan Dominguez <ol style="list-style-type: none"> 1) Modelling decision making by autonomous systems for information collection in intelligence - Dr. Kerry Malone (NLD) 2) The right tool for the job: A collaborative requirements mapping effort to demonstrate optimal combinations of media analysis tools for understanding the information environment - Dr. Thomas Powell (NLD)
	Room #2 - Stream – OR&A Methods #1 – Lead Mr. Conrad Grant / Ms. Sylvie Martel <ol style="list-style-type: none"> 1) Predicting Howitzer Barrel Cracks with Bayesian Inference - Dr. Stephen Weber (CAN) 2) A New Munitions Taxonomy: Categorizing Advanced Weapons for Robust Analysis and Artificial Intelligence Assisted Applications - Mr. Tyler Hacker (USA)
	Room #3 - Stream – Operations Assessment – Lead Mr. Jan Frelin <ol style="list-style-type: none"> 1) A mutual understanding of behavior - Mr. Stuart Smith (JFCBS) 2) Cold Response 2022 – Analyzing Deterrence Exercises During Real Deterrence Operations - Mr. Fridheim Håvard (NOR)
1030-1100	Health Break
1100-1230	Room #1 (Plenary room) - Stream – Strategic Analysis #1 – Lead Mr. Andrew Bell / Dr. Etienne Vincent <ol style="list-style-type: none"> 1) Old dog, new tricks? NATO Defence Planning and the wider Capability Development process - LTC (rtd) Bruce Pennell (NCIA) – virtual 2) Benchmarking National Military Forces through Comparison with Allies - Dr. Etienne Vincent (CAN)

	<p>Room #2 - Stream – OR&A Methods #2 – Lead Mr. Conrad Grant / Ms. Sylvie Martel</p> <ol style="list-style-type: none"> 1) How Operational Research and Analysis is Deciding the UK's Next Generation of Land Equipment - Mr. Jack Radford (GBR) 2) Dissemination of military survey results - Dr. Wang Zhigang (CAN)
	<p>Room #3 - Stream – Artificial Intelligence / Machine Learning #2 – Lead Prof. Dick Deckro / Mr. Angelo De Lucia</p> <ol style="list-style-type: none"> 1) Natural language processing techniques tailored to military operational reports - Lt-Col Jean-Noël Bass (FRA) 2) Real-time neurophysiological measure of individual and team operators' cognitive performance for defence applications - Prof. Fabio Babiloni (ITA) 3) PECAN: Pipeline for Auto-Encoder and Causal Analysis For the Royal Canadian Navy - Dr. Bruce Spencer (CAN)
1230-1400	Lunch Break
1400-1530	<p>Room #1 (Plenary room) - Stream – OR&A Methods #3 – Ms. Chiara Rylander / Dr. Janis Berzins</p> <ol style="list-style-type: none"> 1) Revisiting the Problem of Area Search Optimization for a Large Fleet of Heterogeneous Maritime Unmanned Systems - Dr. Burak Akbulut (CMRE) 2) NexGen Rotorcraft Impact on Military Operations – Mr. John Preston (USA) - <i>virtual</i> <p>Room #2 - Stream – Layered Resilience #2 – Mr. Stein Malerud / Ms. Sue Collins</p> <ol style="list-style-type: none"> 1) System Dynamics and Open Source data to support Civilian Resilience Assessment - Dr. Jan Hodicky (CZE) 2) Towards layered resilience - A Delphi study of Swedish defence authorities - Dr. Thomas Ekström (SWE) 3) Modelling Total Defence Systems to Inform National Resilience Objectives - Dr. Sellevåg Stig Rune (NOR) <p>Room #3 - Stream – Strategic Analysis #2 – Mr. Alvaro Martin-Blanco / Dr. Andreas Graae</p> <ol style="list-style-type: none"> 1) The Future of Weapons of Mass Destruction when Emerging Technologies Arise - LtCol Natalie Vanatta (USA) 2) Long-term defence planning in an unsettled security environment - Dr. Petter K. Køber (NOR)
1530-1600	Health Break
1600-1700	Keynote 2: Dr. David Alberts, (plenary) - <i>virtual</i>
1700-1730	Conference closing - Awards
1745	Bus departure to Hotel Scandic Falkoner

Time	Day 3, Wednesday, 19 October 2022
0800	Bus departure from Hotel Scandic Falkoner
0830-0900	Arrival and Setup
0900-1130	Room #2 Training: SAS-124: Visualization Design for Communicating Defence Investment Uncertainty and Risk - Mr. Mark Rempel (CAN), Dr. Paul Thompson (USA), Mr. Herbert Schoening (DEU)
1130-1230	Lunch Break
1230-1400	Room #2 Training: SAS-124: Visualization Design for Communicating Defence Investment Uncertainty and Risk.
1415	Bus departure to Hotel Scandic Falkoner

Site Plan

