



NORTH ATLANTIC TREATY ORGANIZATION

ORGANISATION DU TRAITE
DE L'ATLANTIQUE NORD



STO-OCS(2024)0081

ACT/CAPDEV/REQ/TT-8863/SER: NU2378

TO: See Distribution

SUBJECT: **CALLING NOTICE FOR THE 18th NATO OPERATIONS
RESEARCH AND ANALYSIS CONFERENCE**

DATE: 10 July 2024

1. On behalf of the Science and Technology Organization and Headquarters Supreme Allied Commander Transformation, we are pleased to announce the opening of registration for the 18th NATO Operations Research and Analysis (OR&A) Conference. It will be held in Malaga, Spain, from 04 to 05 November 2024 with an optional training day on 06 November. The event is open to all NATO Nations, NATO Bodies, NATO Agencies, Australia, Austria, Japan, and Switzerland. Registration will close on 21 October 17.00 Central European Time (CET).

2. The Conference will be held physically. Selected presentations may be streamed over a dedicated WebEX Channel (to be confirmed).

3. Registration for the Conference will be completed through the STO Events site: <https://events.sto.nato.int/index.php/upcoming-events/event-list/event/17-sy/471-18th-nato-ora-conference>. If you already created an account on the STO Events site in the past you can login with the same credentials. If it is your first time using the STO Events site you will have to sign up first. We recommend to register your organization or governmental email address when creating your STO Events account. At the time of registration, attendees will also be afforded the opportunity to sign up for a training activity, which will be conducted on day three.

4. The goal of the NATO OR&A Conference is to provide an exciting programme relevant to the OR&A Community of Interest, with plenty of opportunities for discussion, debate and provision of valuable and relevant training. This event builds on previous Conferences and workshops, bringing together the analysis community from NATO Commands and Agencies, national defence analysis and research organisations, Centres of Excellence, Academia, and Industry.

5. The 2024 theme is “**Collaboration to enable military advantage in an unstable world**”. NATO’s strength is our unity, and cooperating on defence and security related concerns is a continuous process in order to solve problems, build trust, and ultimately prevent conflict. Our rules-based international order is under constant pressure, and alliance members may develop technologically and militarily at different speeds, causing issues in understanding and interoperability. This can be mitigated through effective collaboration. Therefore the OR&A Conference is seeking presentations and papers that highlight best practices in international collaborative analytical projects, or presentations that offer analytical methods that can be adapted by various organizations in different countries.

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6. The theme reflects the long-standing practice of OR&A in Defence, tackling ongoing and future challenges faced by the Alliance. The conference will kick off with a keynote address on defences challenges and opportunities for operational analysis and will cover the following topics:

- a. Deterrence Theory;
- b. Policy Analysis;
- c. Defence Planning;
- d. Horizon Scanning Analysis;
- e. Advances in National OR&A;
- f. Munitions Analysis;
- g. Future Technology Assessment;
- h. Big Data;
- i. Logistics Simulation;
- j. Cyber and Space;
- k. Digital Transformation;
- l. Advances in Wargaming;
- m. Unmanned and Autonomous Systems;
- n. Operations Assessment and Campaign Analysis;
- o. Multi Domain Operations.

7. The Conference will run for two full days starting at 08.30 on Monday 04 November 2024. Optional training is offered on Wednesday 06 November, ending approximately at 13.00 CET (17.00 for NATO Organizations' personnel). A preliminary Conference Programme is attached to this calling notice.

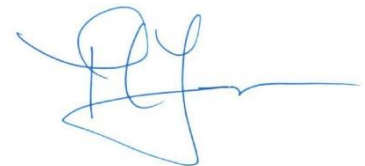
8. A general information package will be available at on the STO events site after registration is validated. This package contains all information to make travel arrangements, and benefit from negotiated hotel rates. We endeavor to keep costs as low as possible to participants, however a small Conference fee may be necessary and will be communicated in advance.

9. Should there be any questions, our point of contact for registration is Mr Jeroen Groenevelt, STO Collaborative Support Office (CSO), sas@cs0.nato.int, +33 1 55 61 22 77.

10. Additional information and Frequently Asked Questions may be found on the STO Events site: <https://events.sto.nato.int/index.php/upcoming-events/event-list/event/17-sy/471-18th-nato-ora-conference>. Any additional questions or concerns may be directed to the Program Committee Chair: Ms. Sue Collins, natooraconference@act.nato.int, +1 757 747 3121.



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ENCLOSURE:

1. 18th NATO Operations Research And Analysis Conference Programme

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COE Air Operations
COE Civil-Military Cooperation
COE Cold Weather Operations
COE Combined Joint Operations from the Sea
COE Command and Control
COE Operations in Confined and Shallow Waters
COE Cooperative Cyber Defence
COE Counter-Improvised Explosive Devices
COE Counter Intelligence
COE Crisis Management and Disaster Response
COE Defence Against Terrorism
COE Energy Security

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COE Explosive Ordnance Disposal
COE Human Intelligence
COE Integrated Air And Missile Defence
COE Joint Air Power Competence
COE Joint Chemical, Biological, Radiological and Nuclear Defence
COE Maritime Geospatial, Meteorological and Oceanographic
COE Maritime Security
COE Military Engineering
COE Military Medicine
COE Military Police
COE Modelling and Simulation
COE Mountain Warfare
COE Naval Mine Warfare
COE Security Force Assistance
COE Stability Policing
COE Strategic Communications
COE Space

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 DATED 10 JUL 24

18th NATO OPERATIONS RESEARCH AND ANALYSIS CONFERENCE PROGRAMME
04 – 06 November 2024

Preliminary Programme – subject to change (all times are in CET)

Time	Day 1, Monday 04 November
0830-0900	Arrival and Setup
0900-0930	Conference opening (plenary) : <ul style="list-style-type: none"> • Opening Remarks (ACT) • Welcome remarks by Host Nation • Conference overview by Ms. Sue Collins, Conference Chair, NATO Allied Command Transformation
0930-1030	Keynote 1: Defences Challenges and Opportunities for Operational Analysis - Gen Sverre Diesen (NOR), former Norwegian Chief of Defence.
1030-1100	Break
1100-1230	Room A – Deterrence Theory <ol style="list-style-type: none"> 1) #19 - Strengthening deterrence: re-invigorating strategic thinking across the Alliance – Dr Bohdan Kaluzny (ACT) 2) #61 - Deterrence in the High North: Analysis findings from recent live exercises - Mr Haavard Fridheim (NOR) 3) #29 - An evaluation of Neoclassical Realism theory to analyze the decisions of states to use military power to achieve their foreign policy goals - Cpt Nikolaos Pertzinidis (GRC)
	Room B – Policy Analysis <ol style="list-style-type: none"> 1) #57 - How to assess the Women, Peace and Security Agenda – Ms Helené Lackenbauer (SWE) 2) #66 - What can defence doctrine and concept development learn from commercial business idea and business model design? – Mr Joakim Persson (SWE) 3) #71 - SAS-160-RTG 'ELM support for use of disruptive technology in operations – Ms Linda Holtby (GBR)

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	<p>Room C – Defence Planning</p> <p>1) #63 - Enhancing Defence Analytics: The Journey from Spreadsheets to Custom Web Applications for Long-Term Defence Planning – Mr Even Toensberg (NOR)</p> <p>2) #64 - Building a whole from a hole: how to support mid to long term defence planning under high uncertainty and transformed needs – Dr Louise Simonsson (SWE)</p> <p>3) #47 - Modeling the impact of long-term steady-state demand for military capabilities – Dr Dagfinn Vatne (NOR)</p>
1230-1400	Lunch Break
1400-1530	<p>Room A – Horizon Scanning Analysis</p> <p>1) #46 - Horizon scanning for high impact-low likelihood crises – Mr Ethan Sykes (GBR)</p> <p>2) #58 - S&T Trends 2025-2045 Methodologies – Mr Daniel Bayliss (STO)</p> <p>3) #54 - Augmenting Horizon Scanning for Informed Policy Decision-Making: Leveraging Generative AI for Strategic Analysis of Large and Complex Scientific Domains – Senior Scientist Ulrika Wickenberg Bolin (SWE)</p>
	<p>Room B– Advances in National Operational Analysis</p> <p>1) #36 - Operations Research on the Path to Net-Zero – Dr Etienne Vincent (CAN)</p> <p>2) #60 - Impact of Sweden’s NATO membership on military operational analysis practice in Sweden – Dr Tomas Eriksson (SWE)</p> <p>3) #32 - The Key Attributes of an Ideal Complex Engineering Software Programme – Mrs Emily Rafter (GBR)</p>
	<p>Room C – Munitions Analysis</p> <p>1) #35 - Rapid Effectiveness Modeling for Artillery Munitions: Advance Interoperability and Technological Overmatch – Ms Evelyn Welling (USA)</p> <p>2) #70 - Counting on Industry: Assessing the Industrial Capacity for Manufacturing Munitions – Mr Jonathan Searle (NCIA)</p> <p>3) #16 - Overhead Fires Methodology – Ms Denay Sicsko (USA)</p>
1530-1600	Break
1600-1730	Room A – SAS-177 Panel Discussion: Collaborating to Bolster Defence of Democracy in the IE – Lead Dr. Waldman (CAN)
	Room B – Lego Serious Play Demonstration – Ms Anna Fahlgård-Lahache and Mr. Marcus Tynnhammar (SWE)
	Room C – Grand Assent Concensus Wargaming Demonstration – Mr Kiran Lakkaraju (USA)
1730-1800	Ice Breaker

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Time	Day 2, Tuesday 05 November
0830-0900	Arrival and Setup
0900-0930	Opening remarks (plenary) <ul style="list-style-type: none"> • Dr. Bryan Wells, NATO Chief Scientist • Ms. Sue Collins, Conference Chair, NATO Allied Command Transformation
0930-1030	Room A – Future Technology Assessment 1) #24 - Future Force Study – Mr Glenn Richards (NCIA) 2) #25 - Assessing Future Technologies through a Hybrid Lens – Mr Rick Meessen (NLD) 3) #26 - How Could Technology Development Transform the Future Operating Environment? – Prof Richard Allington(GBR)
	Room B – Big Data 1) #20 - Geolocated Sentiment Analysis of Social Media Streams – Dr Mehmet Bayram (TUR) 2) #2 - BIG DATA & An Empirical Assessment of Social Unrest Dynamics and State Response In Eurasian Countries – Dr Gonzalo de Cadenas-Santiago (ESP) 3) #30 - Data to leverage C2 military skills to secure the Paris Olympics 2024 – LtCol Luc Gensbittel (FRA)
	Room C – Logistics Simulation 1) #65 - Combining military logistics wargaming and simulation – LtCol Sandra Huber (JLSGNP) 2) #15 - MEDEVAC mission planning and decision making with Mixed-Integer Programming and Wargaming – Prof Dr Armin Fügenschuh (DEU) 3) #42 - Supply chain readiness for times of conflict: laying the foundation for a dormant war economy – Dr Bram Westerweel (NLD)
1030-1100	Break
1100-1230	Room A – Multi Domain Operations: Cyber and Space 1) #69 - How can the space domain contribute to efficient multi-domain operations in the Nordic Arctic? – Mr Brynjar Arnfinnsson (NOR) 2) #9 - Protecting GNSS critical infrastructure in an unstable world – Mr Francisco Gallardo López (ESP) 3) #23 - An approach to estimate the impact to mission functions following a cyber breach – Dr Maxwell Dondo (CAN)
	Room B – Unmanned and Autonomous Systems 1) #21 - Employment of automated operational systems based on numerical models and METOCEAN Information for GEOMETOC cuppor of naval operations: SIAAMETOC PROJECT – Cdr Alejandro Ortega Felipe (ESP)

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	<p>2) #17 - Measuring the operational requirement amount of kamikaze Unmanned Maritime Vehicles (UMVs) based on the effectiveness in the battlefield – Cdr Dr Tolga Temuçin (TUR)</p> <p>3) #31 - SWARM of UAS Modeling and Simulation Framework – Mr Cesar Sosa (USA)</p>
	<p>Room C – Advances in Wargaming</p> <p>1) #56 - SAS-170: A Best Practices Guidebook for Distributed Wargaming – Dr Murray Dixson (CAN)</p> <p>2) #14 - Leveraging Large Language Models for Enhanced Wargaming in Multi-Domain Operations – First Lieutenant Dominic Weller (DEU)</p> <p>3) #55 - AI Frontiers in Wargaming: Unveiling the Future of NATO's Strategic Exercises with Red Dragon 2044 – Ms Talia Beech (ACT)</p>
1230-1400	Lunch Break
1400-1530	<p>Room A – Digital Transformation</p> <p>1) #51 - Enhancing Preparedness and Readiness: Situational Awareness and Data-driven Decision Making – Dr d’Artis Kancs (LVA)</p> <p>2) #41 - Enhancing Military Decision-Making through Real-Time Data Acquisition, Analysis, and Representation – Mr Dario Caruso (ITA)</p> <p>3) #13 - Leveraging Machine Learning to Identify and Confirm Intentional Biases in Military Procurement Bid Evaluation – Dr Nariman Firoozy (CAN)</p>
	<p>Room B – Operations Assessment and Campaign Analysis</p> <p>1) #10 - A Cognitive Formulation of OPSA process in the context of Multi Domain Operations – Mr Mehmet Akif Morkaya (TUR)</p> <p>2) #1 - Risk-based forecasting in warfighting campaigns – Mr Stuart Smith (JFCBS)</p> <p>3) #4 - Political and Social Collaboration Key to Military Advantage and Strategic Success – Ms Enisa Musai (MKD)</p>
	<p>Room C – Multi-Domain Operations</p> <p>1) #67 - Multi-Domain Operations (MDO) facing a complex reality – Ms Birgitta Liljedahl (SWE)</p> <p>2) #37 - A Framework for System-of-Systems Multi-Domain Operational Planning – LtCol Kyle Wilkinson (USA)</p> <p>3) #27 - Defence StratCom Functional Analysis and StratCom System Mapping – Dr Patrick Blannin (AUS)</p>
1530-1600	Break
1600-1700	Keynote 2: Evolution of Russian military thought on strategic environment since 2014 - Katri Pynnöniemi (FIN)
1700-1730	Conference closing - Awards

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Time	Day 3, Wednesday, 06 November
0830-0900	Arrival and Setup
0900-1300	Introduction to NATO Alternative Analysis www.act.nato.int/alta
1300-1400	Lunch Break
1400-1700	NATO Analysts Meeting (only for NATO personnel)