

43rd International Symposium on Military Operational Research

National Oceanography Centre, 14th – 16 July 2026

Programme

Updated 10 July 2026

Content and timings subject to change up to the start of the symposium.

Time Item

MONDAY 13TH July 2026

1900 **Welcome Reception**, a networking event with food and a welcome drink provided
HARBAR at the Harbour Hotel, Ocean Village, Southampton
Kindly sponsored by Techmodal

TUESDAY 14TH JULY 2026

0830–0930 REGISTRATION

0930–1000	Welcome and Introduction Symposium Chair will welcome delegates, and Programme Chair will introduce the ISMOR 43 Programme Matt Bunn & Rebecca Fry	
1000–1100	Keynote by Prof. Dr. Ana Barros , Principal Scientist at TNO <i>Artificial Intelligence has entered warfare — but has warfare become more intelligent?</i>	
1100–1125	NETWORKING BREAK	
1125–1130	Introduction to Presentation Session 1a General OA (A) Chapman	Introduction to Presentation Session 1b Engineering Capability Assessments Pepper
1130–1200	1a.1 Army Warfighting Experiment (AWE) on Robotics and Autonomous Systems (RAS) Wilder & Freeland	1b.1 NATO SACT: Force Lethality Enhancement for Combat Engineering Riley
1200–1230	1a.2 Naval force modelling through commander taskings to subordinates employing tactics, techniques and procedures Young	1b.2 Applying a Structured Approach to Capability Audits – An Introduction to Mission Engineering Schwarting
1230–1330	LUNCH	

Time	Item	
1330–1500	Workshop Session A Option to attend one of four workshops running in parallel. <i>(Delegate sign-up will take place during the morning break)</i>	
A1	Impactful Presenting: Top tips to prepare and deliver briefings with ease BUNN, THOMPSON & EVANS Sirius Analysis	
A2	Visualising Complexity: A Practical Workshop on Ecosystem Mapping HOLNESS Sirius Analysis	
A3	Exploring Modelling in Defence: Methods, Limitations and Uncertainty WALKER Arke Ltd	
A4	Edge of Tomorrow: Outlining a Pathway Methodology for Scenario Development TROSKIE, JEFFRIES & RIGGS QinetiQ Training and Simulation Ltd	
1500–1525	NETWORKING BREAK	
1525–1530	Introduction to Presentation Session 2a <i>Uncrewed Systems</i> Ward	Introduction to Presentation Session 2b <i>Simulation Modelling</i> Aubrey
1530–1600	2a.1 A computational framework for optimal task assignment in uncrewed underwater vehicle fleets Dunn	2b.1 Integrated Surgery Scheduling and Post-Surgical Bed Planning in a Military Hospital Carneiro
1600–1630	2a.2 Analysing How to Counter the Threat from Combined Uncrewed Systems Hodge	2b.2 When Does the Budget Break? Agent-Based Modelling and Generative AI for Royal Navy Corridor Planning Under Compound Uncertainty Singh
1630–close	Networking Dinner , with a pub quiz starting at 1700, followed by dinner from 1800 National Oceanography Centre <i>Kindly sponsored by Catalyze</i>	

WEDNESDAY 15TH JULY 2026

0830–0900 REGISTRATION

0900–0920	Welcome and Introduction Symposium Chair will welcome delegates, and Programme Chair will introduce the ISMOR 43 Programme Matt Bunn & Rebecca Fry
0920–0930	OR Society Presentation Sarah Davies Maximise your network with the OR Society
0930–1030	Ronnie Shephard Address by Nicola Morrill , Chief Analyst at Dstl and joint Head of Profession for OR within UK Ministry of Defence

1030–1055 NETWORKING BREAK

1055–1100	Introduction to Presentation Session 3a General OA (B) Troskie	Introduction to Presentation Session 3b Digital Twins Chapman
1100–1130	3a.1 Analytic Support to Military Adaptation Frelin	3b.1 Artificial Intelligence-Extended Reality (AI-XR) and Digital Twin Architectures for Resilient Defence Decision-Making Across the Capability Lifecycle Snook
1130–1200	3a.2 Typhoon Pilot Training Wargame Modelling Deevoy	3b.2 Digital twins with multi-objective optimisation in defence Ross

1200–1315 LUNCH *with Poster Session from 1230*

1230–1315	Poster Session
A	Multi-target path planning for pseudo-collaborative scalable Artificial Intelligence Unmanned Aerial Vehicle swarms using Quality-Diversity neuro-evolution SCARRETT MBDA UK
B	Carbon Fighting - An Arke carbon model HURST Arke Ltd
C	From Observations to Interventions: A Method for Analysing Complex Training Processes GOMES Sirius Analysis
D	Speaking the same language: Using the Strategic Planning Framework to align Strategy, Risk and Resources SHARROCK Catalyze
E	From Wargame to Dataset: A Platform for Real-Time Wargame Data Collection and Analysis PEDERSEN Sirius Digital
F	Turning Science Fiction into Science Fact DOWNWARD Sagentia Defence
G	Climate Change Impacts on Defence and Security WALKER QinetiQ

1315–1445	Workshop Session B Option to attend one of four workshops running in parallel. (<i>Delegate sign-up will take place during the morning break</i>)	
B1	Networking – How to build and grow your connections WARD & SOLLY Arke Ltd & Cosimmetry	
B2	Visualising Complexity: A Practical Workshop on Ecosystem Mapping HOLNESS Sirius Analysis	
B3	Exploring Modelling in Defence: Methods, Limitations and Uncertainty WALKER Arke Ltd	
B4	Edge of Tomorrow: Outlining a Pathway Methodology for Scenario Development TROSKIE, JEFFRIES & RIGGS QinetiQ Training and Simulation Ltd	
1445–1505	NETWORKING BREAK	
1505–1510	Introduction to Presentation Session 4a <i>OA Drawing on Historical Data</i> Rowley	Introduction to Presentation Session 4b <i>Adversarial Reasoning under Uncertainty</i> Pepper
1510–1540	4a.1 Morale and Combat Effectiveness Coulson, Main & Fahey	4b.1 Opponent State Inference Under Partial Observability in Competitive Strategic Systems Kleisarchaki
1540–1610	4a.2 Developing a Corps Level Attrition Model Robson	4b.2 Camouflage, Concealment & Deception in an Age of Artificial Intelligence Magill
1610–1615	ROOM CHANGE	
1615–1700	Panel Discussion Synthetic Environments for Defence Chair Matthew Harrison, <i>Sirius Analysis</i>	
1900	Symposium Dinner Banana Wharf, Ocean Village, Southampton <i>Kindly sponsored by Sagentia Defence</i>	

THURSDAY 16TH JULY 2026

0830–0900 REGISTRATION

0900–0915	Welcome and Introduction Symposium Chair will welcome delegates, and Programme Chair will introduce the ISMOR 43 Programme Matt Bunn & Rebecca Fry	
0915–0925	ROOM CHANGE	
0925–0930	Introduction to Presentation Session 5a Wargaming Troskie	Introduction to Presentation Session 5b OA using Mathematical and Statistical Methods Ward
0930–1000	5a.1 Communications & Electronic Warfare (EW) Warfare Development (WARDEV) Dobrosavljevic & Holford	5b.1 Multilayered combat modelling using dynamical systems equations inspired by Mathematical Ecology Lloyd
1000–1030	5a.2 Blended Wargaming: Integrating Manual and Digital Wargames Bolt	5b.2 Enhancing Online Statistical Decision-Making in Maritime Command and Control Systems: A Resilience Analysis of the LORD Procedure Under Adversarial Data Perturbations Benicio
1030–1055	Networking Break	
1055–1100	Introduction to Presentation Session 6a General OA (C) Rowley	Introduction to Presentation Session 6b General OA (D) Aubrey
1100–1130	6a.1 Modeling Interdependencies and Cascading Effects on Critical Infrastructures with Risk-Posture–Driven Aviation Security Portfolio Optimization Leonard	6b.1 A Framework for Assessing Sovereign Decision Support Chapman & Salmons
1130–1200	6a.2 Evidencing the Hybrid Navy: Operational Analysis for System-of-Systems Maritime Force Design Bray	6b.2 How effective are One-Way-Effectors? Page
1200–1300	Lunch	
1300–1400	MORS Eugene Visco Prize Winning Presentation Scaling the Modeling Pyramid: Lessons Learned from Integrating Physics-Based Models into Large-Scale Operational Simulations Nikas	
1400–1445	Closing Panel Closing Discussion Chaired by Matt Bunn, <i>Catalyze</i>	

1445–1500	Award Ceremony & Closing Remarks Presentation of awards for prize-winning ISMOR presentations and poster
1500	CLOSE