Defence iQ

# MARITIME ISR

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UK Hydrographic Office

CELLULA ROBOTICS

OVERWATCH IMAGING

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| DAY ONE: TUESDAY 28 OCTOBER 2025 | |
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| 0800 | **REGISTRATION AND MORNING COFFEE** |
| 0900 | **DEFENCE IQ WELCOME**<br>**Abbie Butler,** Conference Director, **Defence iQ** |
| 0905 | **CHAIRMAN'S OPENING REMARKS**<br>**W. Carmelo Fontan,** Former Chief Technology Officer, NAVSEA and Technical Director, Robotic Autonomous Systems Office, OPNAV, **US Navy** |
| **STRATEGIC CONTEXT: KEY INSIGHTS INTO MARITIME ISR AND SECURITY** | |
| 0920 | **VIRTUAL: GLOBAL MARITIME SAFETY AND SECURITY: UNITY, RESILIENCE AND STRATEGIC PURPOSE IN A CHANGING WORLD**<br>• The maritime domain as a shared strategic space<br>• Converging challenges – collective responsibility<br>• Innovation, integration and intentional leadership<br>**Vice Admiral Doug Perry,** Commander Joint Force Command Norfolk, Commander, U.S. 2nd Fleet, **Director Combined Joint Operations** |
| 0945 | **TECHNOLOGY PREDICTIONS FOR THE NEXT DECADE OF INTELLIGENCE AND SECURITY**<br>• Addressing current challenges through cross-domain innovation<br>• Exploring trends and how we can together transform maritime intelligence<br>• A look at how next-gen capabilities can redefine operational resilience<br>**Commander Jon Sutcliff,** UK Co-Director, NavalX, **London Tech-Bridge** |
| 1015 | **A HYDROGRAPHIC OFFICE PERSPECTIVE ON OPTIMISING FOUNDATION UNDERSTANDING OF THE MARINE ENVIRONMENT TO ENHANCE MARITIME SECURITY**<br>• Understanding the role of a National Hydrographic Office<br>• Exploring advancements in technology to aid in data acquisition, assurance, and accessibility<br>• Leveraging collaborative frameworks to improve interoperability and better enable maritime information sharing<br>**Jeremy Churcher,** Head of Defence, **UK Hydrographic Office** |
| 1045 | **MORNING COFFEE AND NETWORKING BREAK** |
| **ADDRESSING CURRENT CHALLENGES WITHIN MARITIME OPERATIONS** | |
| 1115 | **ISR EXPERIMENTATION AT REPMUS 2025**<br>• A testbed for innovation, experimentation and success: REPMUS<br>• Demonstrating how collaborative experimentation is advancing seamless connectivity<br>• Fostering multilateral cooperation and developing scalable, future-ready solutions<br>**Lieutenant Commander Guilherme Rosinha,** Staff Officer - Innovation & Transformation Division, **Portuguese Navy** |

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| 1145 | **ADVANCING ISR THROUGH INTELLIGENT SENSORS AND INFORMATION FUSION**<br>• How multi-sensor fusion transforms fragmented maritime data into coherent, actionable intelligence for faster, more informed decision-making<br>• Leveraging machine learning to detect anomalies, predict threats and enhance situational awareness across dynamic maritime environments<br>• Building scalable, cross-domain sensor systems that support operations and future-proof ISR capabilities across the ecosystem<br>**Professor Dr. Wolfgang Koch,** Fellow IEEE, Chief Scientist and Head Sensor Data & Information Fusion, **Fraunhofer FKIE** |
| 1215 | **HOW THE NSPA IS EXPANDING FAST TO MEET THE UAS NEEDS FOR THE ALLIANCE IN THE MARITIME DOMAIN**<br>• Deliver coherent, capable and collaborative UAS ecosystems<br>• Foster Joint/multi-national procurement and operations<br>• Drive innovation<br>**Martin Van Duin,** Senior Operational Requirements Analyst, AGS and UAS Programme Office, **NATO Support and Procurement Agency (NSPA)** |
| 1245 | **NETWORKING LUNCH** |
| **THE USE OF UxS & AUTONOMOUS PLATFORMS IN UNDERWATER OPERATIONS** | |
| 1400 | **PANEL: THE FUTURE OF UNDERWATER OPERATIONS FOR MARITIME SECURITY**<br>• Autonomous mapping capabilities<br>• Subsurface surveillance integration into operations<br>• Data-driven decision support<br>*Moderated by:*<br>**W. Carmelo Fontan,** Former Chief Technology Officer, NAVSEA and Technical Director, Robotic Autonomous Systems Office, OPNAV, **US Navy**<br>*Panellists include:*<br>**Jeremy Churcher,** Head of Defence, **UK Hydrographic Office**<br>**Lieutenant Commander Guilherme Rosinha,** Staff Officer - Innovation & Transformation Division, **Portuguese Navy**<br>**Richard Mills,** Chief Commercial Officer, **Cellula Robotics**<br>**Paul Heiden,** CEO, **Optics11** |
| 1445 | **AFTERNOON TEA AND NETWORKING BREAK** |
| 1530 | **MARITIME ISR WARGAME – OPEN TO ALL ATTENDEES**<br>**SCENARIO:** Blue and Red are racing to occupy a strategic island chain. Both sides are sending an Amphibious Task Group to occupy one of the main islands.<br>Victory is based on the first to land a marine force on the island that they have selected, with additional kudos based on enemy forces sunk, destroyed or damaged.<br>With thanks to **Professor David Manley, University College London** |
| 1715 | **CHAIRMAN'S DAY ONE SUMMARY**<br>**W. Carmelo Fontan,** Former Chief Technology Officer, NAVSEA and Technical Director, Robotic Autonomous Systems Office, OPNAV, **US Navy** |
| 1730 | **END OF DAY ONE** |

| DAY TWO: WEDNESDAY 29 OCTOBER 2025 | |
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| 0830 | **REGISTRATION AND MORNING COFFEE** |
| 0900  | **CHAIRMAN'S OPENING REMARKS**<br>**W. Carmelo Fontan,** Former Chief Technology Officer, NAVSEA and Technical Director, Robotic Autonomous Systems Office, OPNAV, **US Navy** |
| **INTELLIGENCE FOR MARITIME OPERATIONS** | |
| 0915 | **GEOSPATIAL INTELLIGENCE: THE BACKBONE OF MARITIME ISR**<br>• Leveraging advanced geospatial tools to enhance maritime situational awareness, route planning and threat detection<br>• Integrating AI and edge computing to process vast ISR data streams from satellites, UAVs and naval assets in real time<br>• Using geospatial intelligence to optimise mission planning, reduce response times and support decision-making in dynamic maritime environment<br>**Christy Monaco**, Chief Operating Officer, **Open Geospatial Consortium** |
| 0945  | **BRIDGING OCEANS WITH OPEN DATA**<br>• One ocean, one framework<br>• Data without borders<br>• Ocean observation is critical infrastructure<br>**Patrick Gorringe,** Senior International Relations Manager, Oceans SMHI, **Swedish Meteorological and Hydrological Institute** |
| 1015  | **VIRTUAL: SYNCHRONISING THE SPECTRUM: OPERATIONAL INSIGHTS FROM MULTI-DOMAIN INTELLIGENCE**<br>• Integrating space, cyber, air, and maritime data to deliver persistent, layered awareness in contested maritime environments<br>• Turning complex, multi-domain inputs into operationally relevant intelligence that supports faster, more agile decision-making<br>• Enabling coalition effectiveness through shared frameworks, common data standards, and mission-driven analytics<br>**Robert Gregg,** Senior Multi-Domain Operations Analyst and Deputy Branch Head Operational C2, **NATO Supreme Allied Command Transformation (ACT)** |
| 1045 | **MORNING COFFEE AND NETWORKING BREAK** |
| **AERIAL TECHNOLOGY UTILISATION IN MARITIME SECURITY** | |
| 1130 | **NEW TECHNOLOGY FOR NEW THREATS: ACCELERATING MARITIME INTELLIGENCE THROUGH ONBOARD AUTONOMY**<br>• Operational realities of new maritime threats, ISR challenges and highlight emerging technology approaches to increase capabilities<br>• Examine operational capabilities unlocked through automation<br>• Discuss examples of autonomy in action and rethink the ISR Workflow<br>**Matt Lynaugh,** Business Development Director, **Overwatch Imaging** |
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| 1200  | **PANEL: WINGS OVER WATER - ARE AERIAL ASSETS THE FUTURE OF MARITIME ISR OR AN EXPENSIVE DISTRACTION?**<br>• How are next-gen aerial platforms (crewed and uncrewed) reshaping maritime ISR capabilities in contested and congested environments?<br>• What do operators and R&D need from procurement to accelerate integration of AI, autonomy, and multi-domain interoperability in aerial ISR assets?<br>• How can feedback loops between operators and developers ensure aerial ISR platforms are tailored for real-world maritime missions?<br>*Moderated by:*<br>**W. Carmelo Fontan,** Former Chief Technology Officer, NAVSEA and Technical Director, Robotic Autonomous Systems Office, OPNAV, **US Navy**<br>*Panellists include:*<br>**Wing Commander Stuart Hague,** RPAS Programme Manager / MQ-9 International Cooperation Support Partnership, **Royal Air Force**<br>**Martin Van Duin,** Senior Operational Requirements Analyst, AGS and UAS Programme Office, **NATO Support and Procurement Agency (NSPA)**<br>**James Morris,** Assistant Head of Delivery, **UKDI**<br>**Commander Mohummed 'Cas' Koheeallee,** UAS Programmes, Navy Develop, Carrier Strike and Maritime Aviation, **Royal Navy** |
| 1300 | **NETWORKING LUNCH** |
| | **TECHNOLOGY CONNECTING THE ATLANTIC** |
| 1400  | **BROADENING HORIZONS WITH ADVANCED UAS CAPABILITIES IN THE NAVY**<br>• The Royal Navy's Hybrid Airwings Concept. Optimising maritime aviation towards the best of both worlds<br>• The equipment is the easy part. Exploitation of the capabilities afforded by UAS is the hard part<br>• Persistent ISR as the pathfinder carrier-borne UAS programme. The long road ahead<br>**Commander Mohummed 'Cas' Koheeallee,** UAS Programmes, Navy Develop, Carrier Strike and Maritime Aviation, **Royal Navy** |
| 1430  | **DUAL-USE TECHNOLOGIES FOR SMARTER MARITIME DOMAINS**<br>• Applying supercomputing power to fuse public and classified maritime data streams for real-time, secure situational analysis<br>• Bridging civil and defence innovation to accelerate scalable, interoperable maritime surveillance solutions<br>• Enabling predictive maritime intelligence through AI-driven models trained on vast, diverse Atlantic data ecosystems<br>**Dr. Joan Farnós Baulenas,** Head of Dual-Use Technologies, **Barcelona Supercomputing Centre** |
| 1500 | **CHAIRMAN'S CLOSING REMARKS**<br>**W. Carmelo Fontan,** Former Chief Technology Officer, NAVSEA and Technical Director, Robotic Autonomous Systems Office, OPNAV, **US Navy** |
| 1545 | **END OF CONFERENCE** |