



Vážený kolegové,

v tomto dokumentu máte přehled nově navržených výzkumných aktivit Organizace pro vědu a technologie NATO, kterých se mohou zúčastnit experti z České republiky.

V tabulce jsou uvedeny i tzv. ET, které byly zahájeny v roce 2024. Protože je předpoklad, že tato témata budou v roce 2025 navržena k zahájení v některém z jiných formátů, je možné se k nim později připojit.

NATO Science&Technology Organisation není grantová organizace a zapojení do jejích aktivit není žádným způsobem zpoplatněno, ale až na výjimečné případy také nejsou ze strany NATO hrazeny náklady s pojené se zapojením do aktivit. NATO STO není grantová organizace.

Zapojení se do aktivit NATO STO je vhodné i pro studenty doktorských programů, kteří mají podobná témata svých disertačních prací.

V případě zájmu nebo upřesnění detailů některých aktivit nás můžete kdykoliv kontaktovat viz kontakty v zápatí.

Význam zkratk:

AVT – Panel Applied Vehicles Technologies
HFM – Panel Human Factors and Medicine
IST – Panel Information System Technologies
MSG – Skupina Modeling and Simulation Group
SAS – Panel System Analysis Studies
SCI – System Concept Integration
SET – Sensors Electronic Technologies

Class – označení utajované klasifikace¹

NU – NATO Unclassified
UU – NATO Public Release
NR – NATO Restricted (bezpečnostní prověrka je vyžadována)
NC – NATO Confidential (bezpečnostní prověrka je vyžadována)
NS – NATO Secret (bezpečnostní prověrka je vyžadována)

Typy aktivit:

RTG – Research Task Group
RSM – Research Specialist Meeting
RLS – Research Lecture Series
RWS – Research Workshop
RTC – Research Technical Course
ET – Exploratory Team (přípravné jednání před vlastní aktivitou s cílem stanovit cíle, obsah a záměr realizace aktivity)
ST – Specialist Team

¹ U aktivit klasifikovaný NR, NC a NS jsou bližší informace poskytovány pouze organizacím, které mají příslušnou bezpečnostní prověrku



Návrhy nových aktivit Organizace pro vědu a technologie NATO podzim 2024

Panel	Number	Type	Class	Title	Starts
AVT	AVT-399	RTG	NU	Assessment of Experiments and Prediction Methods for Naval Ship Transient Maneuvers in Calm Water and Waves	01 I 2025
AVT	AVT-402	RTG	NU	Active flow control Applied to Air Inlets for High-speed Propulsion Systems	01 I 2025
AVT	AVT-404	RTG	NU	Enhanced Design Processes of Military Vehicles through Machine Learning Methods	01 I 2025
AVT	AVT-413	RTG	NU	Physics and Modeling of Separated Flows Around Smoothly-Curved Bodies	01 I 2025
AVT	AVT-414	RTG	NU	Acoustic Mission Planning and Environmental Impact Analysis for UAS and UCA (<5000kg)	01 I 2025
AVT	AVT-415	RTG	NU	Advanced Noise Reduction Methodologies and Design Efforts for Aircraft Applications	01 I 2025
AVT	AVT-MSG-401	RTG	NU	Augmented Reality in Land Operations: Balancing Risks and Chances in Technical and Human Systems Challenges	01 I 2025
AVT	AVT-SET-417	RTG	NU	Materials for Thermal Infrared Camouflage – Development and Characterization	01 I 2025
AVT	AVT-418	RTG	NU	Sustaining Energetic Materials Capability for the Future	01 I 2026
AVT	AVT-419	RTG	NU	Demonstration of Novel Control Allocation Methods	01 I 2026
AVT	AVT-420	RTG	NS	End-to-End Framework for Signature Modelling of Advanced Weapons Systems	01 I 2026
AVT	AVT-SET-HFM-SAS-421	RSM	NU	Platform Digital Twins for Prognostic Health Management	20 I 2025
AVT	AVT-422	RSM	NU	Novel Technologies and Approaches to Naval Corrosion	20 I 2025
AVT	AVT-423	RTG	NU	Quantum-aided Design for Military Applications	01 I 2026
AVT	AVT-424	RTG	NU	Mission Led Design of Air Vehicles With Active Flow Control	01 I 2026
AVT	AVT-425	RSM	NU	Physics and Modeling of Flow Separation	20 I 2025
AVT	AVT-426	RTG	NU	Three-dimensional Unsteady Flow Interactions with Rigid Wings	01 I 2026
AVT	AVT-427	RTG	NU	Environmental Technologies for Sustainable Live-Fire Military Ranges in a Climate Change Context	01 I 2026
AVT	AVT-428	RTG	NU	Integration Benefits of Novel Engine Concepts for Future Aircrafts	20 I 2025
AVT	AVT-429	RWS	NU	Risks from Exposure to Munition Combustion Products	20 I 2025
AVT	AVT-430	RTG	NU	Methods and Tools for Qualification of Advanced/Emerging Propulsion Systems	20 I 2025



Panel	Number	Type	Class	Title	Starts
AVT	AVT-431	RTG	NU	Digital System Models of Airframe, Propulsion, Power and Thermal Systems for Military Aircraft Design and Performance Evaluation	20 I 2025
AVT	AVT-432	RWS	NS	Lessons Learned/Identified for future platform related technology development from current crisis and war in Europe	20 I 2025
AVT	AVT-SAS-SET-HFM-433	RTG	NU	Electro-optic Scatterometry - Application in Computational Platform Signature Mode	20 I 2025
AVT	AVT-ET-250	ET	NU	Advancing Wildland Fire Science for Range Management: Strategies for Prevention, Mitigation and Risk Evaluation	01 X 2024
AVT	AVT-ET-251	ET	NU	Shipboard Launch and Recovery of Uncrewed/Unmanned Aerial Systems: Modelling and Simulation Technology	01 X 2024
AVT	AVT-ET-253	ET	NU	Predicting Hypersonic Boundary-Layer Transition in realistic conditions	01 I 2025
AVT	AVT-ET-254	ET	NU	Identification of remaining Additive Manufacturing challenges for NATO operations and logistics	01 I 2025
AVT	AVT-ET-255	ET	NU	Active Flow Control and Buffeting Alleviation for Fighter-Type Configurations	01 I 2025
AVT	AVT-ET-256	ET	NU	Stability & Control and Loads Predictions of NATO Military Vehicles	01 I 2025
AVT	AVT-ET-257	ET	NU	Design Considerations for Rotating Detonation Engines	01 I 2025
AVT	AVT-ET-258	ET	NU	Experiments and Modelling of High-Reynolds Number External and Internal Turbulent Hypersonic Flows	01 I 2025
HFM	HFM-AVT-400	RTG	NU	Development of a Taxonomy-Based Approach for Technical Coordination and Planning of the Science & Technology Collaborative Programme of Work	15 IV 2025
HFM	HFM-401	RTG	NU	Optimizing Combat Casualty Care for Extreme Cold Weather Operations	15 IV 2025
HFM	HFM-402	RTG	NU	Digital Mental Performance Training	15 IV 2025
HFM	HFM-403	RTG	UU	Endovascular Hemorrhage Control in Combat Casualties	15 IV 2025
HFM	HFM-404	RTG	UU	Conducting research with human participants	15 IV 2025
HFM	HFM-405	RTG	UU	Optimizing Menstrual Health in Servicewomen	15 IV 2025
HFM	HFM-SAS-406	RTG	NU	The Ethical and Legal Challenges of Cognitive Warfare	15 IV 2025
HFM	HFM-408	RTG	NU	Chaplains and Spiritual-existential Well-being	15 IV 2025
HFM	HFM-IST-SCI-410	RTG	NU	Information Operations and Social Media Simulators Evaluation	15 IV 2025
HFM	HFM-411	RTG	UU	Advanced Tourniquet Techniques	15 IV 2025



Panel	Number	Type	Class	Title	Starts
HFM	HFM-415	RTG	UU	Determining Factors to Improve Tactical Combat Casualty Care	15 IV 2025
HFM	HFM-ET-220	ET	NU	Aircrew Human Performance Optimization	24 VI 2024
HFM	HFM-ET-222	ET	NU	Evidence Based Aerospace Medicine	09 X 2024
HFM	HFM-ET-223	ET	NU	Neurostimulation	02 VII 2024
HFM	HFM-AVT-ET-225	ET	NU	Aircrew protection and performance during exposures to complex noise	15 IV 2025
HFM	HFM-ET-229	ET	UU	Extending blood product shelf life	15 IV 2025
HFM	HFM-ET-230	ET	NR	Electromagnetic Signature Mapping of Tactical Medical Equipment	15 IV 2025
IST	IST-224	RSY	UU	IST Annual Symposium 2026 - International Conference on Military Communication and Information Systems (ICMCIS)	19 V 2025
IST	IST-HFM-SAS-SET-229	RLS	NU	Alliance Artificial Intelligence Readiness	03 III 2025
IST	IST-230	RSM	NU	Architecture & Intelligent Information Systems (AI2S) Dissemination for Federated Mission Networking (FMN)	03 III 2025
IST	IST-231	RTG	NU	Selected Challenges on Future-G Developments	03 III 2025
IST	IST-232	RTG	NU	Selected Challenges on Protected Core Networking (PCN) Developments	03 III 2025
IST	IST-233	RSM	NS	State-of-the-art and Emerging Electronic Protection Measures for Military Communications	03 III 2025
IST	IST-SET-226	RSY	NU	Quantum Technology	01 V 2025
IST	IST-ET-128	ET	NU	Formal modelling of military cryptographic key-management (COMSEC) processes	01 I 2025
IST	IST-ET-130	ET	NU	Courses of Action Analysis (CoA)	03 III 2025
IST	IST-ET-131	ET	NU	Monitoring and Control of Responsible development of AI for Military Applications	03 III 2025
IST	IST-HFM-ET-132	ET	NS	Understanding hostile states' internal information environment and control	03 III 2025
MSG	MSG-229	RSY	UU	NMSG Annual Symposium 2025	05 I 2025
MSG	MSG-232	RTG	NS	Establishing an Modelling & Simulation Ecosystem to support Multi-Domain Operations (MDO)	03 II 2025
MSG	MSG-233	RTG	UU	NATO Modelling & Simulation Resources/Standards Support Team - IV	14 II 2025
MSG	MSG-234	RTG	UU	Training Data Analytics and Standards	20 I 2025
MSG	MSG-235	RTG	NU	Space Weather Data Processing for Improving Resilience Models	20 I 2025



Panel	Number	Type	Class	Title	Starts
MSG	MSG-ET-057	ET	NU	NATO Modelling and Simulation Services Verification, Validation and Accreditation	02 XII 2024
SAS	SAS-196	RSY	NU	SAS Annual Symposium - 19th NATO Operations Research and Analysis (OR&A) Conference 2025	01 I 2025
SAS	SAS-201	RTG	NU	Robust Guidance for Defence Investment Portfolio Decision-Making and Analysis Support	01 XII 2024
SAS	SAS-204	RLS	NU	Future Strategic Environment Assessment	20 I 2025
SAS	SAS-AVT-SET-HFM-205	RTG	NU	Youth Perspective on Emerging and Disruptive Technologies	20 I 2025
SAS	SAS-SCI-206	RTG	UU	Weak Signals Playbook	20 I 2025
SAS	SAS-SCI-207	RTG	NU	Assessing and Exploring Artificial Intelligence Natural Language Processing Technologies for Military Contexts	27 I 2025
SAS	SAS-HFM-208	RTG	NU	Inclusion of Generation Z+ to Defence Organizations	20 I 2025
SAS	SAS-SCI-209	RTG	NU	Directed Energy Weapons Integration into the NATO Force Mix	20 I 2025
SAS	SAS-ET-FQ	ET	UU	The connection of North Atlantic and Arctic Oceans in the 21st century challenges of maritime and human securities (2023-2035)	01 VI 2024
SAS	SAS-ET-FS	ET	NU	Challenges for Multi-Domain Operations	01 VI 2024
SAS	SAS-ET-FU	ET	NU	Analytical Bias in Weak Signal Assessment	01 XI 2024
SAS	SAS-ET-FW	ET	NU	Assumptions in Operational Planning, Wargaming, and Strategy	01 VII 2024
SAS	SAS-ET-FX	ET	UU	Nature-based Infrastructure for Coastal Installation Protection	01 XII 2024
SAS	SAS-ET-FY	ET	NU	Increased defence capabilities by exploiting synergies with wind power	01 XII 2024
SAS	SAS-HFM-ET-FZ	ET	UU	Climate Change & Security	11 XI 2024
SAS	SAS-MSG-ET-FP	ET	NU	Measuring the Operational Effectiveness of Software-Intensive Military Platforms in Cyber and Electronic Warfare Environments	01 VII 2024
SAS	SAS-MSG-ET-FR	ET	NU	Quantifying Defense Capabilities using Data Analytics and Mathematical Modelling.	01 VII 2024
SAS	SAS-MSG-ET-FT	ET	NU	Automated Data Driven Detection of Futures Weak Signals	01 VI 2024
SAS	SAS-MSG-ET-FV	ET	NU	Emerging and Disruptive Technology – Strategic and Societal Implications and the future pipeline	01 VII 2024
SAS	SAS-ET-FU	ET	NU	Analytical Bias in Weak Signal Assessment	01 XI 2024



Panel	Number	Type	Class	Title	Starts
SAS	SAS-ET-GA	ET	NU	A Research Roadmap to determine NATO-wide synergies in the broader Defence Technological and Industrial Base	01 XII 2024
SAS	SAS-ET-GB	ET	NU	The End of Manoeuvre Warfare?	01 XII 2024
SAS	SAS-HFM-ET-GD	ET	NU	UAV-logistics using a grid of autonomous charging stations	01 XII 2024
SAS	SAS-HFM-SCI-ET-GC	ET	NU	Autonomous transport swarms	01 XII 2024
SCI	SCI-357	RTG	NU	Comparison of Allied Nations Space Strategies	10 XII 2024
SCI	SCI-362	RTG	NU	Electronic Support (ES) Techniques Enabling Cognitive Electronic Warfare (EW)	11 IX 2024
SCI	SCI-364	RTG	NU	Interoperable Underwater Sonar Data Model and Formats	01 XI 2024
SCI	SCI-365	RTG	NU	Exploring Interoperable Autonomous Collaboration	01 XI 2024
SCI	SCI-367	RTG	NS	Modeling Multi-Sensor Engagements across the Electro-Optical/Infrared/Radio Frequency Spectrum	02 I 2025
SCI	SCI-368	RTG	NS	Advanced Radio Frequency Electromagnetic Attack and Defence to counter Radar Threats	19 I 2025
SCI	SCI-369	RTG	NU	Proposal for Establishing and Accelerating Trust in Complex Autonomous and Artificial Intelligence Systems Development, Test, and Operations	20 I 2025
SCI	SCI-370	RSM	NU	Dual-Use Space Technologies Exploitation for NATO Alliance Operations and Security	20 I 2025
SCI	SCI-371	RTG	NS	Radio-Frequency Directed Energy Weapons – Research to support Operational Readiness	31 I 2025
SCI	SCI-372	RTG	NS	High Energy Laser Weapons: Multi-Mission Concept Development and Joint Operations Simulation	1 IV 2025
SCI	SCI-IST-352	RSM	NS	Covert Radio Frequency Surveillance by Passive and Low Probability of Intercept Sensors	1 V 2025
SCI	SCI-ET-071	ET	NU	UAS Providing Aerial Backbone For ISR, Communications Relay, & to Achieve Decision Advantage	01 XI 2024
SCI	SCI-ET-072	ET	NR	Quantifying High Energy Laser Propagation for C-UAS, air-to-ground, and Challenging Environments	01 I 2025
SET	SET-347	RTG	NU	Applications of Neuromorphic Sensors	11 IX 2024
SET	SET-350	RTG	NU	Sparse Representations and Machine Learning for Radio Frequency Signal Processing	02 II 2025
SET	SET-353	RTG	NS	High Angle Electro-Optical/Infrared Ship Signatures in an Arctic Environment	1 IV 2025
SET	SET-354	RSY	NR	11 th Military Sensing Symposium	31 I 2025



Panel	Number	Type	Class	Title	Starts
SET	SET-355	RTG	NS	Strategic and Tactical Intelligence, Surveillance and Reconnaissance Empowered by New Space Synthetic Aperture Radar Capabilities and Open Source Data	01 V 2025
SET	SET-SCI-AVT-356	RTG	NS	Detection of Landmines and Minefields from Small Unmanned Aerial and Ground Systems	31 I 2025
SET	SET-ET-138	ET	NU	Photonic Integrated Circuit Enhancements for Military Sensing, PNT & Communications	17 IX 2024
SET	SET-ET-139	ET	NU	Integrated Sensing and Communication (ISAC)	09 IX 2024
SET	SET-ET-140	ET	NU	Atmospheric Effects on Electro-Optical Systems	06 I 2025
SET	SET-ET-141	ET	NU	Cooperative Sensing for Military Platforms	16 VII 2024
SET	SET-ET-142	ET	NU	Exploring Novel Techniques for Nuclear Disarmament Verification	27 VI 2024
SET	SET-ET-145	ET	NU	Harnessing Biology to Detect Explosives	01 IV 2025
SET	SET-IST-ET-136	ET	NU	Underwater Optical Wireless Communications	26 VI 2024
SET	SET-IST-ET-137	ET	NU	Interoperability at the Tactical Edge	26 IX 2024
SET	SET-MSG-ET-143	ET	NU	Understanding Inter-Dependencies of Environment, Scene and Observation in Sensor Simulation	06 I 2025
SET	SET-HFM-AVT-ET-144	ET	NU	Autonomy and Robotics for CBRN Sensing	06 I 2025
SET	SET-SCI-344	RLS	NU	Active and Passive Radar Systems for Space Domain Awareness	01 I 2025