Vážení 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 2023. Protože je předpoklad, že tato témata budou v roce 2024 navržena k zahájení v některém z jiných formátů, je možné se k nim později v roce 2024 připojit.

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

Význam zkratek:

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 klasifikace[1]

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] Navrhované aktivity klasifikované NR, NC a NS nejsou v seznamu z bezpečnostních důvodů uvedeny

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Návrhy nových aktivit Organizace pro vědu a technologie NATO
podzim 2023

Panel	Number	Type	Status	Class	Title	Starts
AVT	AVT-ET-240	ET	Active	NU	Implementation strategies for environmentally compliant materials and processes	01.07.2023
AVT	AVT-SCI-ET-241	ET	Active	NU	Electro-optic scatterometry - application in computational platform signature modelling	01.07.2023
AVT	AVT-ET-242	ET	Active	NU	Control Allocation for Complex Vehicle Control Systems	01.07.2023
AVT	AVT-ET-243	ET	Active	NU	Critical Energetic Materials development of sustainability	01.07.2023
AVT	AVT-ET-244	ET	Active	NU	Digital System Models for Integrated Propulsion, Power & Thermal Systems for Military Aircraft	01.07.2023
AVT	AVT-ET-247	ET	Planning	NU	Three-dimensional aspects of unsteady flow interactions with rigid wings	01.01.2024
AVT	AVT-ET-246	ET	Planning	NU	Engine Integration Improvements due to advanced Engine Concepts	01.01.2024
AVT	AVT-ET-248	ET	Planning	NU	Hydrogen as Fuel, Power Source & Infrastructure Challenges to NATO	01.01.2024
AVT	AVT-IST-ET-245	ET	Planning	NU	Quantum-aided Design for Military Applications	01.01.2024
AVT	AVT-416	RLS	Proposed	NU	Lecture Series for Computational - Experimental Collaborations for Complex Analysis	01.01.2024
AVT	AVT-IST-398	RTG	Planning	NU	Development of a STANREC for Augmented Reality in Land Platforms	01.09.2023
AVT	AVT-380	RTG	Planning	NU	Ground Vehicle Ride Quality Testing and Analysis with Complex Terrain	01.01.2024

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AVT	AVT-381	RTG	Planning	NU	Maintenance Modeling in UxV Design for Improved Readiness & Endurance	01.01.2024
AVT	AVT-382	RTG	Planning	NU	Dynamic Reconfigurable Mission Planning for Improved Readiness of Autonomous Military Vehicles	01.01.2024
AVT	AVT-383	RTG	Planning	NU	Paint removal test protocol and application guidelines	01.01.2024
AVT	AVT-386	RTG	Planning	NU	Assessment of vortex-vortex interaction and cavitation inception	01.01.2024
AVT	AVT-387	RTG	Planning	NU	Common Research Wind Tunnels for CFD Verification and Validation	01.01.2024
AVT	AVT-388	RTG	Planning	NU	Operation of Unmanned Aerial Vehicles (UAVs) in Icing Environments	01.01.2024
AVT	AVT-389	RTG	Planning	NU	Understanding Risk due to Reynolds Scaling Effects on the Stability and Control for Future Combat Aircraft Development	01.01.2024
AVT	AVT-390	RTG	Planning	NU	Vortex Flow Predictions for Stability and Control of Missile Airframes	01.01.2024
AVT	AVT-392	RTG	Planning	NU	Assessment of numerical methods for complex flow over marine control surfaces	01.01.2024
AVT	AVT-395	RTG	Active	NU	Enhanced weapons performance through new energetic molecules/formulations/processing	01.01.2024
AVT	AVT-408	RTG	Proposed	NU	Autonomous Mobility Assessment for Military Ground Systems (CDT)	01.01.2024
AVT	AVT-410	RTG	Proposed	NU	End-2-End NG-NRMM Demonstration with Autonomous Assist Systems (CDT)	01.01.2024
AVT	AVT-SCI-405	RTG	Proposed	NU	Conceptual Aggregated Design of Hypersonic Glide Vehicle (HGV)	01.01.2024
AVT	AVT-406	RTG	Proposed	NU	Innovative Solutions for Micro-Propulsion Systems for Small Spacecraft	01.01.2024

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Panel	Number	Type	Status	Class	Title	Starts
AVT	AVT-HFM-403	RTG	Proposed	NU	PFAS In Soil and Water: Mitigation, Remediation and Risk Management for NATO Members	01.05.2024
AVT	AVT-400	RWS	Proposed	NU	Emerging Propulsion Technologies for NATO Land Vehicle Platform Systems	01.01.2024
AVT	AVT-409	RWS	Proposed	NU	Life Cycle Analysis of Sustainable Technology for Military Platforms	01.01.2024
AVT	AVT-412	RWS	Proposed	NU	Bonded Joint Design Validation and Inspection Methods to Achieve Certification	01.01.2024
AVT	AVT-407	RWS	Proposed	NU	System Qualification and Certification by Analysis	01.01.2024
AVT	AVT-411	RWS	Proposed	UU	Machine Learning and Artificial Intelligence for Military Vehicle Design	01.01.2024
HFM	HFM-ET-208	ET	Active	UU	Definition of a Methodology for the Assessment of Sustainability of Military Organizations, Operations and Logistics (MIL_SDG)	16.02.2023
HFM	HFM-ET-202	ET	Active	UU	COVID 19 in Aerospace and Diving: Riding the High and Low Waves	23.03.2023
HFM	HFM-ET-198	ET	Active	UU	The applicability of the Value-Based Healthcare concept in NATO (operational) Military Health Systems	22.05.2023
HFM	HFM-ET-203	ET	Active	NU	Optimized Menstrual Health in Servicewomen	24.05.2023
HFM	HFM-ET-206	ET	Active	NU	Biomanufacturing of National Security Materials	31.05.2023
HFM	HFM-ET-196	ET	Active	NU	Enhanced Physical Protection and Hazard Management in CBRN Defence	06.09.2023
HFM	HFM-ET-209	ET	Active	UU	Spiritual Dimension of military health	26.09.2023
HFM	HFM-ET-216	ET	Planning	NU	Methods and Weapons of Adversary Cognitive Warfare	01.10.2023

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HFM	HFM-ET-217	ET	Planning	NU	CBRN Medical Support Deep Dive and Future Optimization of CRBN Casualty Care	01.10.2023
HFM	HFM-ET-214	ET	Planning	NU	Cognitive Security: building and maintaining resistance to offensive cognitive strategies	01.10.2023
HFM	HFM-ET-210	ET	Planning	NU	International Military Human Participation Research: Cross Cultural Applications	01.10.2023
HFM	HFM-ET-211	ET	Planning	NU	Endovascular Hemorrhage Control in Combat Casualties: Best Practices, Technology, and Training Harmonization	01.10.2023
HFM	HFM-ET-212	ET	Active	NU	Evaluation Criteria and Use Cases for Information Operation/Social Media Simulators	06.12.2023
HFM	HFM-ET-215	ET	Active	UU	The Ethical and Legal Challenges of Cognitive Warfare	15.12.2023
HFM	HFM-MSG-ET-218	ET	Planning	UU	Artificial Intelligence in Military Training and Education	11.02.2024
HFM	HFM-371-RSM	RSM	Planning	NU	Blast Exposure Monitoring in Military Training and Operations (BEMMTO)	01.10.2023
HFM	HFM-378	RSM	Proposed	UU	Treatment Challenges with CBRN Combined Injuries	15.01.2024
HFM	HFM-377	RSY	Planning	UU	Meaningful Human Control in Information Warfare	01.09.2023
HFM	HFM-376-RTC	RTC	Planning	NU	Aerospace Medicine: Forward Together	01.09.2023
HFM	HFM-372-RTG	RTG	Planning	NU	Guidelines for Evaluation of Personal Protective Materiel and Systems Against Blast	01.10.2023

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HFM	HFM-368-RTG	RTG	Planning	NU	Gender, Inclusive Leadership and Sustainable Security	01.10.2023
HFM	HFM-379	RTG	Proposed	NU	Occupant Injury Assessment Methods for Mine/IED Protection Levels of Vehicles	15.01.2024
HFM	HFM-381	RTG	Proposed	UU	Military implications of acute noise-induced changes in hearing	15.01.2024
HFM	HFM-382	RTG	Proposed	UU	Human Security and Military Operations	15.01.2024
HFM	HFM-373-RTG	RTG	Active	NU	Technology Enablers and Force Multipliers for CogWar: From Monitoring and Assessment to AI-based Assistance and Automation systems	05.02.2024
HFM	HFM-369-RWS	RWS	Planning	NU	Leader Development for NATO Multinational Military Operations	01.10.2023
IST	IST-ET-128	ET	Planning	NU	Formal modelling of military cryptographic key-management (COMSEC) processes	01.01.2024
IST	IST-MSG-ET-129	ET	Planning	NU	ROE data model for C2, decision making and automation	15.01.2024
IST	IST-ET-127	ET	Planning	NU	Explainable AI in decision support systems	04.03.2024
IST	IST-209	RSY	Planning	UU	IST Annual Symposium 2025 - International Conference on Military Communication and Information Systems (ICMCIS)	01.07.2024
IST	IST-210	RSY	Planning	UU	AI Security and Assurance for Military Systems	01.09.2024
IST	IST-207	RTG	Planning	NU	Military Applications for Large Language Models	01.09.2023
IST	IST-199 (COM)	RTG	Planning	NU	Free-Space Optical Communications	10.01.2024
IST	IST-216	RTG	Proposed	NU	Channel Modelling and Application for Secure Underwater Acoustic Communications Waveform Assessment and Standardization	15.01.2024

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IST	IST-217	RTG	Proposed	NU	Military Quantum Internet	01.02.2024
IST	IST-219	RTG	Proposed	NU	Quantum Technology Vulnerabilities	05.02.2024
IST	IST-220	RTG	Proposed	NU	NATO Wireless Communications Standards Project	13.02.2024
IST	IST-221	RTG	Proposed	NU	Defense against adversarial attacks on machine learning systems	01.03.2024
IST	IST-214	RTG	Proposed	NU	Enabling AI Adoption for Enhanced Defense Interoperability	15.04.2024
IST	IST-215	RTG	Proposed	NU	AI Assurance & Security	15.04.2024
MSG	MSG-ET-055	ET	Planning	NU	Representing Electronic Warfare as part of Multi-Domain Operations in Modelling and Simulation Systems	13.10.2023
MSG	MSG-ET-054	ET	Planning	NU	Unified network architecture and interface declaration for live fire exercise systems on shooting ranges and military training areas	28.11.2023
MSG	MSG-ET-056	ET	Planning	NU	Training Data Analytics and Standards	15.12.2023
MSG	MSG-217	RSY	Planning	UU	Modelling and Simulation as enabler for Digital Transformation in NATO and Nations	01.01.2024
MSG	MSG-222	RTG	Planning	NU	Representing Human Behavior and Decision-Making in Modelling and Simulation	01.10.2023
MSG	MSG-221	RTG	Planning	NU	M&S in support of Building Resilience and Management of People Mass Movement	08.11.2023
MSG	MSG-223	RTG	Proposed	UU	Evolving M&S applications and services for compliance with NATO standards for federated simulation	01.03.2024

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MSG	MSG-225	RWS	Proposed	UU	Zero Trust and Information Security for a Modelling and Simulation as a Service Ecosystem	01.12.2023
MSG	MSG-219	ST	Planning	UU	Domain Specific Language (DSL) for Modeling & Simulation (M&S)	01.11.2023
MSG	MSG-HFM-220	ST	Planning	UU	Effectiveness of Medical Training based on eXtended Reality	05.12.2023
MSG	MSG-224	ST	Proposed	UU	Service Management and Control in federated simulation	15.01.2024
SAS	SAS-ET-FK	ET	Planning	NU	Future Strategic Environment Assessment	01.11.2023
SAS	SAS-ET-FL	ET	Planning	NU	AI tools for Operational Planning	01.12.2023
SAS	SAS-HFM-ET-FM	ET	Planning	NU	Natural Language Processing for Defence: Exploiting the Cutting Edge of Large Language Models for Military Contexts	01.12.2023
SAS	SAS-SCI-ET-FN	ET	Planning	NU	Directed Energy Weapons integration into the NATO force mix	01.01.2024
SAS	SAS-ET-FO	ET	Planning	NU	Comprehensive Assistance Package for Ukraine Tailored Support Measure - Operational Research and Analysis Support.	15.01.2024
SAS	SAS-195	RLS	Proposed	NU	NATO STO Summer School: Decision-Making for the Future	15.01.2024
SAS	SAS-192	RSY	Proposed	NU	SAS Annual Symposium - 18th NATO Operations Research and Analysis (OR&A) Conference 2024	01.01.2024
SAS	SAS-190	RSY	Proposed	NU	Enhancing Energy Security Resilience, Capabilities and Interoperability	15.01.2024
SAS	SAS-191	RTC	Proposed	NU	Nordic Pine 2024: Hybrid Threats to Renewable Energy Systems	01.01.2024
SAS	SAS-194	RTG	Proposed	NU	Validation and Enhancement of the Soldier System Weapon & Equipment Assessment Tool	01.01.2024

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SAS	SAS-HFM-184	ST	Active	NU	Carbon Footprint Assessment of Military Organizations and Operations and related Logistics	01.01.2024
SCI	SCI-ET-065	ET	Planning	NU	Barriers, Challenges and Quantification of Trust in Complex Autonomous Systems and possible AI Acceleration	01.10.2023
SCI	SCI-ET-064	ET	Active	NU	Design and Test of Multispectral Decoys for Land Warfare	01.01.2024
SCI	SCI-MSG-ET-068	ET	Planning	NU	Virtual Reality for Distributed Planning, Analysis and Exploitation of 3D Geospatial Data	01.01.2024
SCI	SCI-MSG-ET-067	ET	Planning	NU	Countering Autonomy/AI Threats	01.01.2024
SCI	SCI-SET-ET-069	ET	Planning	NU	Overarching Quantum Technology Military Roadmap	01.03.2024
SCI	SCI-357	RTG	Planning	NU	Comparison of Allied Nations Space Strategies	01.10.2023
SCI	SCI-SET-355	RTG	Active	NU	Cross-Panel Collaborative Experimentation for Improved Space Situational Awareness (SSA)	06.03.2024
SCI	SCI-SET-362	RTG	Proposed	NU	Electronic Support (ES) Techniques Enabling Cognitive Electronic Warfare (EW)	01.05.2024
SCI	SCI-363	RWS	Proposed	NU	Standards for Maritime Situational Awareness (MSA)	01.01.2024
SET	SET-ET-131	ET	Active	NU	Applications of Neuromorphic Cameras	16.02.2023
SET	SET-ET-133	ET	Active	NU	Elaborating TAPs on Quantum Technology within STB topical CPOW	11.04.2023
SET	SET-ET-134	ET	Active	NU	Using Simulation to train AI for Automated Scene Understanding	18.10.2023
SET	SET-ET-132	ET	Active	NU	Quantum Algorithms for Data Fusion and Resources Management	06.11.2023
SET	SET-IST-ET-136	ET	Planning	NU	Underwater Optical Wireless Communications	01.03.2024

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Panel	Number	Type	Status	Class	Title	Starts
SET	SET-SCI-342	RLS	Proposed	NU	Future EW Engineer (Summer School)	04.03.2024
SET	SET-336	RLS	Proposed	NU	Artificially Intelligent Military Situational Awareness	21.03.2024
SET	SET-337	RLS	Proposed	NU	Advances in Array Calibration for improved ESM Sensor Performance	21.03.2024
SET	SET-331	RSM	Planning	NU	Photonic Integrated Circuits	04.12.2023
SET	SET-334	RTG	Proposed	NU	Military Applications of Extreme Laser Fields	01.01.2024
SET	SET-IST-339	RTG	Proposed	NU	Investigations of Military Applications of Quantum Computing	01.01.2024
SET	SET-335	RTG	Proposed	NU	RFT-OT Data and Sharing Hub (DASH)	15.01.2024
SET	SET-338	RTG	Proposed	NU	Assessment of Navigation with and without GNSS for Military Applications	01.03.2024
SET	SET-332	RTG	Proposed	NU	Assessment of Quantum-Based RF and EM Sensing Potential for Military Applications	01.03.2024
SET	SET-333	RTG	Proposed	NU	Bringing Quantum Sensing from the Laboratories to the Battlefield	01.06.2024
SET	SET-SCI-341	RWS	Proposed	NU	EW Challenge Workshop	15.01.2024
SET	STO-001	ST	Proposed	NU	Coordination and Technical Committee on STO Quantum Activities	01.12.2023

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