Abstracts Accepted for ISMS 2025

Conflict in a Fragmenting World Order

Amsterdam, 12-15 October 2025

Note: some papers included in this collection were withdrawn at the request of the authors. Other authors have requested that their institution not be named because of the withdrawal of permission at a national level. We have endeavoured to comply with these requests. Only participants present at the conference are included in the program. Only abstracts presented at the conference will be included in the Book of Abstracts, which will be published as a free online book. Participants are asked to check their details and inform the secretary of any changes required before publication of the Book of Abstracts.

All accepted abstracts have been provided to allow journal editors and working group chairs to search for work of interest for future publications. Participants may also be interested in follow-up collaborations.

Working Group 1 War Studies

Mr Guntis Skunstins, University of Latvia, Dr Ieva Bērziņa, Technological maturity for Jeune École: The case of Ukraine's naval strategy.

The article analyses Ukraine's naval warfare strategy to achieve sea denial in the Black Sea. The theoretical framework is the strategic naval concept of the Jeune École, which explains how to conduct naval warfare against an opponent with military superiority. By using the process tracing method, the article conducts an in-depth study of how Ukraine changed the balance of military power in the Black Sea between Ukraine and Russia and conceptualizes the idea that the development of modern military technologies in the 21st century has reached a level of maturity that changes the ratio of military capabilities of large and small countries in naval warfare and puts the concept of Jeune École in a new perspective. Even though Jeune École also advocated for an economic war against enemy sea lines of communication, the theory was premature for its time, as technological progress did not support the strategic and tactical goals of this naval strategy. One of the reasons was the welfare of the crews of these small vessels, as sailors often suffered from seasickness and were unable to fight. Today, this obstacle has diminished – uncrewed systems are being used in contemporary warfare, and sailors are no longer the weakest link in achieving the strategic and tactical goals of naval warfare. Thus, the time has come to review the strategic thinking of Jeune École, as technological maturity presents weaker countries with opportunities to challenge the preponderance of a stronger navy, as demonstrated in Ukraine (Bruns, 2024). This article seeks to answer the research question: How did Ukraine achieve sea denial in the Black Sea? Based on data obtained using the process tracing method, the article analyses how Ukraine implemented the transition from a total blockade to a sea denial strategy in the Black Sea.

Ms Nicole Ribeiro Neves, Brazilian Army Command and General Staff College – ECEME, Mr Guilherme Dias, Strategic Command without Troops: Brazilian Military Leadership in MONUSCO and the Dynamics of South–South Security Cooperation.

The recurring appointment of Brazilian generals to the military command of the United Nations Organisation Stabilisation Mission in the Democratic Republic of the Congo (MONUSCO) highlights a unique case of strategic leadership without direct troop deployment on the ground. Since 2013, Brazil has played a central role in the command structure of one of the most complex ongoing peace operations, despite not contributing to its military contingent. This article seeks to address the following question: How does Brazilian military leadership in UN peace operations, particularly in MONUSCO, contribute to building Brazil's strategic influence in Africa, and what does this role reveal about the dynamics of South–South security cooperation? The analysis is based on the hypothesis that Brazilian military command in UN missions functions as a tool of strategic projection and defence diplomacy, reinforcing Brazil's image as a capable, reliable, and internationally engaged military actor. This prominent role is underpinned by a distinctive operational doctrine, prior experience in other missions, and a sustained commitment to

multilateral peace and security agendas. The article offers a critical reading of Brazil's engagement in MONUSCO through the lenses of peace operations literature, multinational military leadership, and South–South cooperation. It argues that Brazilian influence resides not only in the symbolic dimension of command but also in its ability to shape operational practices, prioritize training and capacity-building, and promote a model of military engagement that combines professionalism, restraint in the use of force, and international legitimacy. In doing so, the study contributes to a deeper understanding of new configurations of military leadership in the field of transnational security.

Dr. Agniete Zotkeviciute Baneviciene, General Jonas Žemaitis Military Academy of Lithuania. State-building terrorist groups: Case study of the Taliban.

This study examines the governance strategies of the Taliban, focusing on their transition from an insurgent group to Afghanistan's de facto governing authority following their return to power in 2021. Moving beyond conventional views of terrorist organisations as purely militant actors, this research analyses the Taliban's state-building efforts through the lens of rebel governance. By conceptualising rebel legitimacy as both pragmatic and moral, the study explores how the Taliban has sought to consolidate control domestically while navigating international recognition. Pragmatic legitimacy is assessed through their provision of public services, economic management, security enforcement, and diplomatic engagement. Moral legitimacy is examined through their respect for human rights, respect for individual freedoms, ideological indoctrination, and the rule of law. The findings indicate that while the Taliban has demonstrated governance capacity in areas such as infrastructure development and security consolidation, their exclusionary policies, human rights violations, and economic challenges undermine long-term legitimacy. This research contributes to broader discussions on insurgent governance, state formation, and the complexities of legitimisation processes beyond the traditional nation-state model.

Dr Jānis Bērziņš, National Defence Academy of Latvia, Doctrinal Evolution and Operational Integration of UAVs in the Russian Armed Forces

This paper examines how Russia's approach to military drones (UAVs) has evolved from its intervention in Syria to the ongoing war in Ukraine. Based on a detailed review of over 60 articles from the Russian military journal Voennaya Mysl' (Military Thought), it analyzes how practical battlefield experience has shaped the Russian military's thinking on UAV doctrine and tactics. In Syria, drones like the Orlan-10 and Forpost were mainly used for reconnaissance. They helped identify targets quickly for artillery and airstrikes, improving accuracy and reducing the time between spotting and striking. These early uses led Russian military writers to think more seriously about integrating drones into ground operations, especially alongside artillery and infantry. They also began exploring how drones could support electronic warfare and influence operations. With the war in Ukraine, drone use has become more central. Russian forces now rely on UAVs not just for support, but as key battlefield tools. Drones are used to spot artillery targets, disrupt enemy logistics, and create constant psychological pressure on Ukrainian troops. At the same time, this shift has revealed some critical vulnerabilities. Russia still depends heavily on foreign-made electronics, and Ukrainian forces have been effective at countering drones through electronic warfare. Russian authors openly discuss these issues, and this has led to rapid adjustments in both tactics and design. Currently, Russian strategists are focusing on swarm tactics, increased drone autonomy, and modular designs that allow for quick adaptation in

combat. But there are still major obstacles, including limits in production capacity and challenges in integrating UAVs with conventional units. By analyzing Russian-language military discussions directly, this study reveals not only practical lessons but also the internal debates and strategic thinking behind Russia's evolving use of drones.

Major Gabriela Rocha Bernardes, Brazilian Army Command and Staff College, The possibilities and paths of Military Sciences in Brazil as an interdisciplinary scientific area

This paper aims to analyze the possibilities and paths of the Military Sciences in Brazil, as an interdisciplinary scientific area, focusing on both ontological and epistemological dimensions. By reflecting on science and the evolution of scientific thought, it seeks to theorize the limits of objectivity in the production of scientific knowledge and the insertion of Military Sciences, in the country, in the field of Defense Studies, which are encompassed by the Knowledge Area of Political Science and International Relations, all subordinated to the Major Area of Human Sciences. The study also reflects on the contemporary significance of scientific knowledge, presenting applicable epistemological and ontological perspectives for the study of Military Sciences. To develop these ideas, a qualitative methodology was employed, utilizing content analysis based on primary sources (such as legislation) and secondary sources (including newspapers, magazines, and indexed articles).

Mr Peter Bovet Emanuel, Swedish Defence University, Augmenting Operational Planning through AI: Exploring Decision Advantages in the Comprehensive Shield 2025 Experiment

This paper explores how artificial intelligence (AI) can augment human decision-making and planning performance within operational headquarters. Building on the conceptual framework developed in Exploring Decision Advantages (2025), the study analyzes experimental data from the joint Swedish-Norwegian exercise Comprehensive Shield 2025 (CS25). The CS25 experiment compares three Joint Operational Planning Groups (JOPGs) conducting identical long-term planning tasks: one using NATO's COPD methodology, one using COPD with AI-based decision support, and one combining AI with Systems Oriented Design. A mixed-methods protocol captures performance across six dimensions: planning quality, time efficiency, decision confidence, innovation, cognitive load, and team cohesion. Instruments include expert evaluation, NASA-TLX, and structured participant reflection. Preliminary analysis suggests that AI support extends the cognitive capacity of planning teams, restructures the decision space, and introduces new patterns of operational reasoning. The findings align with recent scholarship emphasizing AI's role in enhancing tempo, sensemaking, and trust dynamics in military decision-making (Bovet Emanuel, 2025; (Chen et al., 2025; Wright et al., 2025). The paper reflects on emerging human-AI teaming practices and how synthetic cognition may challenge traditional methodologies as well as command and control concepts. By situating the CS25 experiment within contemporary debates on professional military education (PME), the study contributes empirical insight into how AI reshapes not only decision processes, but also institutional learning and military epistemology. It concludes with implications for doctrine, staff culture, and AI governance in multinational operational contexts. Keywords: AI, decision support systems, human-machine teaming, military planning, synthetic cognition.

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Colonel Dr Pijpers, Netherlands Defence Academy/ University of Amsterdam, Dr Tine Molendijk, Ilse Wijnen MSc, Elisabeth Dick MSc, Navigating the Cognitive Battlefield

Warfare is changing. While modern conflicts still rely on traditional methods, the cognitive domain is also becoming an increasingly prominent arena. Yet, despite its increasing significance, there remains a notable gap in the scholarly understanding of its legal, ethical and psychological implications. In response, the newly launched "Understanding Cognitive Warfare" project examines legal aspects of cognitive warfare and role of vulnerability and resilience in exposure to disinformation. First, cognitive warfare continues to lack a substantiated definition suitable for the development of a comprehensive legal framework. Our analysis focuses on establishing a robust conceptual foundation, arguing that cognitive warfare should be understood as the disruption and influencing of cognitive processes to secure military advantage. Although international law provides a limited framework addressing the objectives and effects of cognitive attacks, it falls short in regulating the continually evolving technologies employed in cognitive warfare. This creates a persistent dynamic akin to a 'cat-and-mouse' game between international legal norms and the advancing capabilities of cognitive operations. Second, there is a need for psychological insight into how influence through disinformation plays a role in vulnerability and resilience within the Dutch Armed Forces. Existing research often emphasizes resilience but provides little understanding of how vulnerabilities to opposing narratives actually operates. Studies on vulnerability to disinformation tend to focus on either individual or macro-level variables and are often characterized by a limited theoretical foundation. This study seeks to develop a comprehensive framework showing how multidisciplinary psychosocial mechanisms interact across micro, meso, and macro levels. Narratives — strategically constructed storylines that shape perception and behavior in cognitive conflict — appear to play a key role in these multilevel dynamics. By combining psychological insight and legal clarity, this project aims to advance a more theoretically robust and integrated understanding of cognitive warfare, to address the disruptive strategic potential of cognitive warfare.

Mr Andre Luiz Viana Cruz de Carvalho, Brazilian Army Command and General Staff College, What Are Land Forces For? Rethinking Roles, Design, and Strategic Purpose in a Fragmented World

In an increasingly fragmented and technologically contested world order, land forces are being reimagined as central instruments of deterrence, strategic signaling, and operational adaptability. As the character of warfare evolves - marked by the integration of domains and persistent disruption - force design has re-emerged as a vital dimension of military transformation. This proposal assesses the transformation of land force's design, understood as the triad of preparation, equipment, and sustainment, and argues that it plays a foundational role as an instrument of operational risk mitigation. Rather than approaching force design as a merely structural or management concern, this study conceptualizes it as a strategic function. Aligning readiness cycles, technological integration, and sustainment capacities with future operational demands is essential to building forces that are not only interoperable, but also resilient and adaptable. In this light, the paper explores how new combat functions may arise for land forces—

including roles traditionally associated with other services or domains. From sensor-to-shooter integration to distributed logistical nodes and countering tactical A2/AD bubbles, especially observable in Indo-Pacific developments, land forces are expanding their relevance across domains. Drawing on recent doctrinal developments, capability planning efforts, and operational trends, the paper analyzes how this reconfiguration of land forces is unfolding and what it implies for democratic states operating under strategic pressure. While the insights are globally relevant, special attention is given to how European countries can benefit from this evolving understanding of force design. By institutionalizing force design as a risk mitigation mechanism, these states can better prepare for the uncertainties of a fragmented world. Ultimately, this paper contributes to the broader debate on the future of war by situating land force design as a critical enabler of military adaptation in volatile strategic environments.

Dr Niklas Nilsson, Swedish Defence University, Intelligence and Strategic Communication

The use of intelligence for strategic communication (StratCom) involves the deliberate release of intelligence to shape perceptions, deter adversaries, attribute responsibility, foster cohesion, and reinforce credibility. Recent global developments—especially Russia's full-scale invasion of Ukraine—have accelerated this practice, highlighting the role of intelligence in StratCom. Several western governments clearly see considerable advantage in leveraging the credibility conferred by intelligence to their communication strategies. This paper outlines a set of generalised objectives and perceived benefits of intelligence in StratCom, including the general imperative of increasing power and influence, the deterrence and attribution of adversary action, the substantiation of shared narratives strengthening cohesion among publics, allies and partners, and the reinforcement of credibility for communication strategies. The paper also outlines some of the key drivers of using intelligence for StratCom-purposes, including the growing range of perceived threats, the evolution of the information environment driven by new technologies, and the significant growth of the "open-source community". The latter has given rise to competition with the traditional role of intelligence agencies yet has also functioned as a significant enabler for the use of intelligence in StratCom, by producing public and often credible information that supports the disclosure of intelligence assessments without endangering the sources and methods of intelligence agencies themselves. Finally, the paper highlights the disadvantages of using intelligence in StratCom, in terms of the potential risks involved. Unless carefully calibrated and applied, the disclosure and communication of intelligence may endanger operational security, expose sources and methods, and ultimately undermine the integrity of intelligence as a crucial component of the national security infrastructure.

Dr Marzena Żakowska, War Studies University, Modern War and Grey Zones – what small states should be aware of?

In the rapidly evolving international security landscape, the challenges presented by modern warfare and grey zone conflicts are multifaceted, manifesting intricate obstacles for smaller states striving to safeguard their security, sovereignty, and the welfare of their citizens. This paper aims to unveil the conclusive findings derived from the "Modern War and Grey Zones" project – a specialized initiative meticulously crafted for small states within the ISMS War Studies Group (WG1). This project involved a consortium of scholars and experts who collaborated to tackle various state security challenges. Hence, our objective was to explore the array of issues that small states must consider when formulating and preserving their security measures in the face of the complex international security environment shaped by modern warfare and grey zone conflicts.

Our exploration traverses various dimensions, commencing with a comprehensive analysis of how to grasp the intricacies of modern warfare and grey zone dynamics. We underscore the necessity of acknowledging the broadening conflict arenas, including pressing concerns such as climate change, environmental degradation, the burgeoning space domain, and the increasingly pervasive cyber realm. Furthermore, we stress the importance of identifying the key actors within this evolving conflict landscape. Moreover, our discourse extends to encompass policy formulation, strategic planning, and crisis management within the context of modern warfare and grey zone conflicts, highlighting the critical role of intelligence and logistical cooperation. We offer insights into deterrence strategies and effective violence management, advocating for a thorough examination of issues related to cyber operations, information warfare, lawfare, and the intricate dynamics of power. Additionally, we emphasize the pivotal role played by international organizations in addressing the challenges posed by modern warfare. Furthermore, we underscore the significance of understanding societal and individual behavior in response to grey zone threats, with a particular focus on maintaining social cohesion amid turmoil. In this regard, we stress the importance of identifying factors that may contribute to the erosion of state stability, as well as the importance of leveraging primary social organizations to comprehend grey zone conflicts. Through this comprehensive analysis, we aim to illuminate the complexities encountered by small states as they navigate the contemporary security landscape, offering valuable insights and recommendations to strengthen their security frameworks effectively. Key words: modern war, grey zone, conflict, state security, small states

Mr Thomas Slensvik, Norwegian Defence University College, Anders Sookermany, Reimagining Joint Operational Planning: Systems Oriented Design and AI as Tools for Navigating Military Complexity

Contemporary military operations are increasingly shaped by a fragmenting world order, characterized by hybrid threats, volatile actors, and deep systemic interdependencies. This evolving operational environment challenges traditional planning methodologies rooted in linear doctrine. In response, this paper explores how Systems Oriented Design (SOD) (Sevaldson, 2022), supported by artificial intelligence (AI), can serve as a conceptual and methodological alternative within Joint Operational Planning. The empirical foundation of this paper stems from a comparative experiment that will be conducted during a three-week Joint Operational Planning course at the Norwegian Defence University College (NDUC), co-organized with the Swedish Defence University (SDU). As part of a NATO-style HQ simulation, three J5 planning groups are formed: one adhering to traditional doctrinal procedures, another combining doctrine with AI support, and a third employing SOD methodology with selected AI tools. This paper will focus on the latter—an autonomous J5 cell tasked with long-term planning in out-of-area operation using systems-oriented frameworks for situational understanding, problem structuring, and operational design. Building on insights from prior experimentations with SOD in military educational contexts (Slensvik, 2023; Slensvik & Sookermany, 2024), this study anticipates that design-led planning may demand a different cognitive and cultural orientation. Rather than merely adjusting existing processes, SOD may challenge the group's assumptions about what constitutes a military problem—and how such problems might be framed, engaged, or redefined (Heltberg & Dahl, 2019). Key questions include: How might SOD influence planning outcomes and the articulation of operational art? To what extent does its use require not just methodological adaptation, but a mindset shift within the JOPG—from problem-solving to systemic sensemaking (Ryan, 2016)? And how might AI support (rather than displace) this shift?

The paper will analyze these questions through a comparative, exploratory lens, aiming to

contribute to broader discussions in war studies about the evolution of planning cultures. In confronting operational complexity with alternative logics and tools, this experiment explores how militaries might think and plan differently amid the complexities of a fragmented and uncertain world.

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Working Group 2: Military History

Mr, Art Johanson, Baltic Defence College, Chair of the Working Group 2 (Military History)

Dr., Roland Popp, Military Academy (MILAC) at ETH Zurich, A Hind in the Sand: Operation MOUNT HOPE and the Extraction of Captured Soviet Equipment from Chad After the Toyota War

> Following their defeat in the 1986-87 Toyota War fought about the control of the Aouzou Strip along the border with Chad, the defeated Libyan Forces of Muʿammar al-Qaḍḍāfī left behind large amounts of modern Soviet-supplied equipment. Operation MOUNT HOPE, a multi-phased effort starting in early 1987 and tasking for the first time a unified command to conduct a foreign material acquisition effort, managed to extract large amounts of valuable Soviet equipment, inter alia a long sought-after Mil Mi-24/Hind helicopter gunship, and acquiring the greatest amount of significant Eastern Bloc weaponry since the 1973 Arab-Israeli War. Based on newly declassified U.S. documents and Eastern Bloc material, the paper will examine the military and political planning process in preparation for and during the MOUNT HOPE missions, the various negotiations with the Chadian government and the influential French patrons of the latter enabling the ultimate success of the effort, and the subsequent "Lessons Learned" after the conclusion of the various missions in early 1990. This research offers a rare source-based glimpse into the clandestine world of intelligence liaison in the field of foreign material exploitation.

Dr, Adrian Wettstein, Military Academy (MILAC) at ETH Zurich, "Completely unknown tank ahead" : German Intelligence Gathering from Captured Soviet Equipment during Operation "Barbarossa".

> When the German Army unleashed Operation Barbarossa on 22nd June 1941, it was convinced that it possessed a fairly accurate picture of Soviet weaponry. However, from the first week of war onwards, German soldiers encountered Soviet tanks, multiple rocket launchers, mortars and other weapons that were not covered in any of their manuals on the equipment of the Red Army. Many enemy weapons proved a surprise, challenging German perceptions of their own armament being superior. Based on an assessment of rarely examined German files, this paper will show how German soldiers encountered captured equipment unknown to them, how reporting about this new equipment took place and how the central institutions – most prominently Foreign Armies East (Fremde Heere Ost), the German military intelligence section responsible for observing the Red Army – responded and circulated information about the adversary's formerly unfamiliar equipment back to frontline units in the summer and autumn of 1941.

Mr, Jesper Sahl Nielsen, University of Copenhagen, Fighting tomorrow's war with yesterday's tools: Danish Intelligence in Helmand (2007-12)

> This presentation is part of an ongoing PhD project, due for completion in late 2026. While the focus is on part Denmark's Helmand campaign in 2007-12, the findings may also shed light on how small states more broadly manage intelligence in complex, modern conflicts, often with limited resources and a dependence on larger coalition partners. My initial findings point to that, when Denmark deployed to Helmand in 2006, it entered a complex counterinsurgency campaign with an intelligence structure ill-suited for the task. This paper explores how outdated assumptions, fragmented systems and institutional inertia hampered the Danish Army's intelligence ability to function fully properly in an asymmetric environment. Three core deficiencies defined the intelligence effort: First, technical shortfalls, particularly the lack of integrated ISTAR systems, severely limited the processing and dissemination of battlefield information. Second, the absence of a formal education pipeline or career path for intelligence personnel led to reliance on underprepared and short-term staff. Third, intelligence remained culturally and structurally subordinated to operations, limiting its operational impact and reinforcing a reactive attitude.

Drawing primarily on interviews with S2-officers, relevant examinations and official archives, I argue that the Danish Army failed to recognize the specific demands of counterinsurgency. Training emphasized conventional warfare concepts, like fixed frontlines and kinetic targeting, over context-sensitive approaches suited for decentralized insurgency. Intelligence often defaulted to simplified outputs (enemy positions, weapon caches etc.) at the expense of deeper situational understanding. The consequences were operational tunnel vision, poor adaptability and missed opportunities for long-term effects. This case study of Denmark's Helmand deployment offers lessons on the institutional prerequisites for effective military intelligence in asymmetric warfare. It stresses that technology alone is not enough and what's needed is a professional, empowered, and adaptable intelligence culture that can break with outdated paradigms when confronting new types of conflicts.

Dr, Michał Krzysztof Mydłowski, Lessons (un)learned – US Army tactics and weapons from Winfield Scott to Emory Upton

The long shadow of Napoleon Bonaparte extended not only to every major European nation but also to the United States. The U.S. Army, following a rather shameful display during the War of 1812, sought a new system of military tactics. Concurring with the spirit of the post-Napoleonic age, new rules and regulations, written by General Winfield Scott, drew heavily from the French system. While they were not always suitable for the challenges faced by the U.S. Army, their adaptability and solid basic ideas proved sufficient to overcome various Indigenous enemies, as well as Mexico. But the reality of combat changed. Improvements in military technology enabled the development of rifled firearms and cannons, significantly enhancing their effective range, power, and accuracy. Breech-loading and repeating weaponry improved the rate of fire. The U.S. Army, while beginning to adapt, was too slow, and when the Civil War broke out in 1861, it was still employing quasi-Napoleonic tactics in post-Napoleonic combat. However, the war forced commanders to change the way they fought – increased reliance on skirmishers, non-linear formations, trenches, and fast-firing firearms resulted in modernised regulations and tactics. After the war, the U.S. Army faced different opponents – prairie Native Americans – and was once again forced to change its way of conducting military operations and fighting. Irregular and asymmetrical clashes replaced regular Civil War warfare. The goal of the paper is to demonstrate how the U.S. Army's tactics, organisation, and weaponry changed throughout the 19th century and how many lessons from previous wars were forgotten or discarded when faced with new types of enemies.

Professor, Ethan Sepp Rafuse, "Perhaps . . . Distorted by the Atmosphere': Clausewitz, the Centurions, Captivity, and the Civil-Military Dynamic in Changing World Orders

Carl von Clausewitz's and Jean Lartéguy's writings merit the attention of anyone with an interest in the military sciences, especially the dynamics of civil-military relations in times of profound military change. This presentation revisits the experiences of Clausewitz and the French paratroopers whose endeavors in Asia and Africa were chronicled in Lartéguy's books. It places particular focus on how the experience of defeat and captivity interacted with larger forces that were reflected the emergence of new security environments and profound change in the world order in the early 19th century and the early Cold War to shape their thinking. The conclusions they reached, and the response to their ideas, are a major reason these works are of enduring interest to students of war, especially those seeking to drive institutional innovation and adaptation in order address the security challenges of a fragmenting world order. Both Clausewitz and Lartéguy wrote in an effort to assist their readers as they wrestled with changes in war and society, and help them understand the dynamics of civil-military relations, as well as how militaries and the societies they serve should and must adapt to threats, develop effective strategies that incorporate all elements of national power, and make adaptions doctrinally and organizationally to meet new strategic challenges.

Mr, Vlad-Cristian Gheorghita, Institute for Political Studies of Defence and Military History, Ministry of National Defence, , International Disorder and Conflict: The Romanian-Hungarian War of 1919, International Disorder and Conflict: The Romanian-Hungarian War of 1919

The Romanian-Hungarian conflict of 1919 broke out following the collapse of the Austro-Hungarian Empire at the end of World War I. The political fragmentation created by the empire's dissolution led to competing territorial claims and ideological confrontations in Eastern Europe. On December 1, 1918, the National Assembly of Romanians in Transylvania proclaimed the union of Transylvania with Romania. This move was later contested by the Hungarian Soviet Republic under Béla Kun, which sought to reclaim lost territories and spread its revolutionary ideology. The ensuing conflict saw Romanian forces advance into Hungary, culminating in the occupation of Budapest in August 1919 and the subsequent fall of the Hungarian Soviet Republic. This paper examines how international disorder set the stage for war, analysing factors such as the regional context, nationalist tensions, and competing political ideologies. Based on archival research and historical analyses, the paper further explores how the war reshaped the regional order, particularly in thwarting the creation of a land corridor between revolutionary Hungary and Soviet Russia, thus altering the geopolitical dynamics of Eastern Europe. Ultimately, this historical case study offers valuable insights into how regional fragmentation influences war initiation and outcomes, providing relevant parallels for small states in a fragmenting world order.

Working Group 3: Military Technology

Professor, SVAJONĖ BEKEŠIENĖ, General Jonas Zemaitis Military Academy of Lithuania, Silo 5a, LT-10322 Vilnius, Lithuania, no co-authors, Enhancing Small Arms Effectiveness through NATO Battlefield

Lessons and Soldier-Focused Design Principles, The modernization of small arms is a critical element in maintaining force readiness and ensuring operational superiority across evolving battlefield environments. This study explores how insights gained from recent NATO deployments—particularly those conducted in asymmetric and urban warfare contexts—can inform the strategic direction of small arms development. Drawing upon after-action reports, user performance feedback, and coalition force evaluations, the research identifies key shortcomings in legacy small arms platforms, including issues related to ergonomics, modularity, lethality, reliability, and adaptability. Through a comprehensive analysis, this paper highlights four primary drivers in the modernization of small arms: Reliability (F4), Modern Design and Appearance (F1), Bullet Power (F2), and Weapon Platform (F5). These factors were found to exert significant influence on weapon system performance and user satisfaction. The findings underscore the need to integrate advanced materials and engineering approaches to enhance durability and operational reliability. Additionally, a shift toward modular weapon architectures is emphasized, allowing for rapid customization to meet diverse mission requirements. Ballistic optimization remains another priority area, with a focus on increasing precision and stopping power while minimizing system weight and recoil. Crucially, this study advocates for a soldier-centered design philosophy that incorporates ergonomic considerations, intuitive interfaces, and feedback from active personnel to ensure usability under real-world combat stressors. Looking ahead, NATO's emphasis on interoperability, standardization, and innovation will be essential to future development trajectories. Strategic modernization efforts must therefore align technological advancement with practical battlefield requirements, ensuring that small arms remain relevant, effective, and adaptable in an era of complex and rapidly changing threats.

Dr, Martin Lundmark, Swedish Defence University, Roland Hellberg, Demonstrator and prototype activities for boosting defence innovation

In recent years, stimulating defence innovation has become an increasingly prioritized objective, further amplified by Russia's full-scale invasion of Ukraine in February 2022. Many nations have launched initiatives aimed at accelerating the pace of defence innovation, with a particular emphasis on expanding the participation of Small and Medium-sized Enterprises (SMEs) within the defence innovation ecosystem. A key goal among stakeholders engaged in defence innovation and military capability development is to reduce the time from initial ideas to operational capabilities. The Ukrainian case demonstrates how accelerated innovation can yield immediate and impactful support for armed forces in active conflict. Where an ever-evolving threat landscape is continuously met with corresponding countermeasures. Across Europe, there is growing collaboration and coordination among armed forces, procurement agencies, academia, and industry. These actors aim to integrate their competencies, resources, and innovations to foster a more dynamic and synergistic innovation ecosystem. Notably, both the EU and NATO have introduced initiatives to promote cross-border collaboration and facilitate the exchange of technological expertise (e.g. DIANA).National efforts to foster innovation are often framed within the "Triple Helix" model, which emphasizes sustained cooperation among government, industry, and academia. After decades of low threat perception, many European defence structures had become "peace-optimized," characterized by limited readiness for rapid upscaling in defence innovation, acquisition, logistics, and capability development. The sudden increase in security threats following the 2022 invasion of Ukraine exposed the lack of "dynamic capabilities" (Teece, 2007) within both state institutions and the defence industry, capabilities that now need to be developed urgently. This study provides an overarching analysis of European initiatives, nationally and through EU and NATO frameworks, aimed at accelerating defence innovation and broadening

industrial participation. It focuses on Sweden's approach, including the implementation of the Ministry of Defence's Defence Innovation Strategy and the Civil-Military Innovation Programme (CMIP), along with other related initiatives. Demonstrator and prototype programmes play a critical role in fostering inclusive, exploratory innovation and serve as key indicators of progress in dual-use defence innovation. This research involves the examination of strategic documents from supranational and Swedish sources, direct observation of CMIP activities, and interviews with key participants, primarily within Sweden. The study analyses the organization, implementation, and outcomes of these initiatives. The primary objective is to assess how dual-use defence innovation is structured and executed. Preliminary findings suggest that existing defence acquisition infrastructures still exhibit characteristics of "peace-optimization," resulting in inertia when attempting to mobilize multiple stakeholders effectively. Insights from this research are intended to inform political leaders, procurement authorities, armed forces, and innovation actors by offering a clearer understanding of the structural conditions required for a revitalized and resilient defence innovation ecosystem.

Keywords: dynamic capability; triple helix, defence innovation, prototypes and demonstrators, defence industry, co-creation, trust, innovation ecosystem, dual use.

Ms , Suzana Lampreia, Portuguese Naval Academy, Teresa Morgado, Valter Vairinhos, Victor Lobo,
Dynamic Maintenance Integrating Various Methods.

Dynamic maintenance is a concept that can enhance maintenance productivity and sustainability by optimizing the process of equipment intervention. It is believed that with a methodology that integrate various data, inherent of equipment and acquired by sensors, maintenance process may be based on a decision-making support system. To select the methods and methodologies with adequate performance to treat data, we had the difficulty of finding the algorithm that could use data from various sources, considering text and numbers from various types of databases. To give shape to the present concept it was choose the Failure Mode and Effects Critically Analysis, where every data from various sources could be framed in criteria with levels. Then to integrate data from equipment condition control, it was modified the originally Failure Mode and Effects Critically Analysis and was called FMECA-CC, and after the need of congregate experts contribute to give more reliable to FMECA it resulted in FMECA-H-CC, a called humanized response of the methodology. In the condition control data, it was used data acquired from vibration sensors and temperature sensors treated with modified Q control charts, and text by counting the number of occurrences of some terms related to equipment maintenance. The results had shown that this is an appliable methodology that give information about the equipment performance giving option of equipment intervention or not.

Captain, Thomas Dawson, Royal Military College, Applied Military Science, none, Industrial Warfare: Generating Combat Power.

Following an extended period where Counter Insurgency operations (COIN) were the predominant focus of Western militaries, the Russo-Ukraine war has demonstrated the importance of scale, rapid force generation and immense industrial production capabilities in modern Large Scale Combat Operations (LSCO). In this context, military procurement must factor in an industrial warfare perspective, which focusses on the economics of warfare and prioritizes economic efficiency and ease of manufacture over the development of the most technically advanced and tactically effective equipment. This project examines the Canadian Army's LAV 6 platform from an industrial warfare perspective and recommends design changes that would increase the overall combat power of the LAV 6 fleet in a LSCO scenario. Key findings show that the LAV 6 incorporates complex design features as well as stringent quality control and testing requirements that significantly hinder production speed and ease of manufacture. Current General Dynamics Land Systems Canada production capacity falls far short of the estimated requirements of Canada in a LSCO scenario and demonstrates poor economic efficiency when compared to similar

vehicles fielded by Russia. The project proposes design changes for an Industrial Warfare Light Armoured Vehicle aimed at improving producibility and economic efficiency. These include replacing the crewed turret with a Remote Weapon System, simplification of hull geometry, the use of Rolled Homogeneous Armour (RHA) for the hull, incorporation of more Commercial Off-The-Shelf (COTS) components and reducing quality and testing requirements. While some of these changes may decrease overall survivability of the vehicle, the increased producibility will result in a higher volume of fielded vehicles, thus increasing overall combat power in an industrial warfare context. Overall, these changes are projected to improve LAV 6 production by 60%, significantly lower costs and streamline supply chains. Recommendations for improving government and Original Equipment Manufacturer (OEM) collaboration to improve the development of a vehicle with an industrial warfare perspective are also provided. These include treating manufacturability as an operational requirement and empowering government and OEM officials to approve design changes at low levels. This project shows that the LAV 6 cannot be mass produced at the scale required for LSCO without substantial pre-war industrial preparation. A fundamental shift towards designing for ease of manufacture and economic efficiency, coupled with improved government-industry collaboration, is necessary to equip the Canadian Army effectively for future large-scale conflicts.

Ms, Charlotte Duval, Triple Helix, Bibora Imre; Alexander Salt; Alexander Rudolph, Integrating the F-35 in a Personnel Challenged RCAF.

The Royal Canadian Air Force (RCAF) is undergoing change unseen since the 1950s. The 2022 announcement of continental defence and NORAD modernization launched the RCAF in a profound transformation that will allow it to be operationally effective in a 21st century battlespace. Central to this shift is the acquisition and integration of the F-35, which will require serious structural change and capability upgrades to be successful. In parallel, the Canadian military – the RCAF included – are experiencing a shortage of about 12,000 of its personnel. Mid-career members are leaving in significant numbers, and training delays are preventing the fast employment of new recruits. With Lockheed expected to deliver the first F-35 to Canada in 2028, questions remain around how Canada and the RCAF can properly prepare its personnel and its force structure to the integration of a fifth-generation aircraft, while coping with a personnel shortage that undermines its readiness. This presentation aims to offer an overview of the fighter force personnel challenges, what the F-35 requires of personnel (beyond pilots), and what the RCAF can do over the next three years to ensure a successful fleet transition.

Ms, Bibora Imre, Lund University, Sweden, Charlotte Duval-Lantoine, Alexander Salt, Alexander Rudolf, Physicality and Elitism in Canadian Drone Operator Identity'

Military drone operators have long been a particular kind of military member. For states that had them, drones were primarily long-range assets, where operators engaged targets at a distance and often stayed far away from the grit of war. As a result, they were sometimes portrayed as lesser military members, even cowards, both within and outside of military institutions. In the last five years, smaller, shorter-range drones have been proliferating among state and non-state actors. The war in Ukraine has also shifted the idea of what a drone operator is, with Ukrainian operators are portrayed as close to the front line, but still technically proficient. Using interviews with Canadian army members who use drones, this paper shows the shifting narratives around drone use are reflected in Canada as well. One unit in particular was attached to the idea that drone operators were in some way more ‘elite’ than average soldiers, expressing this through physical and mental strength. This re-negotiation of drone operator identity changes the way that drone operators are perceived beyond the war on terror, shifting the focus away from cowardice and towards a regular or elite military member.

Mr., Alexander Rudolph, Carleton University, Bibora Imre; Charlotte Duval; Alexander Salt, Following the Digital Snail’s Trail: The Short History of CAF Cyber Operations

Over the past three decades, cyberspace has increasingly emerged as a critical domain for offensive and defensive operations, drawing the attention of Western militaries, including the Canadian Armed Forces (CAF). Recognizing the strategic importance of this evolving landscape, the Department of National Defence and CAF embarked on developing a robust capability to safeguard the CAF's expanding presence in cyberspace and execute defensive measures crucial for national security. This would culminate in the recent creation of CAF Cyber Command (CAFCYBERCOM), a major milestone in Canada's cyber defence. Historically, CAF leadership regarded computer network operations as support or peripheral elements within the C4ISR framework, relegating cyber operations to a tertiary role. This lack of broad acceptance in DND/CAF and minimal government engagement since its development has meant that the development of cyber capabilities and policy has been conducted in an ad hoc and inconsistent manner. Despite this recognition in the early 2010s, the progression of CAF cyber forces has encountered challenges stemming from institutional and cultural factors affecting the broader digital enterprise of DND/CAF. However, after nearly a decade of concerted effort, the CAF has achieved an initial operating capability for defensive and offensive operations, exemplified by collaborative offensive cyber operations with the Communications Security Establishment (CSE), the deployment of the CAF's inaugural hunt forward operation in Latvia, and the creation of CAFCYBERCOM. This talk delves into historical contexts, technological advancements, and operational challenges, shedding light on the evolving significance and impact of CAF cyber operations and CAFCYBERCOM on national security and defence capabilities.

Dr, Alexander Gordon Fordyce Salt, Canadian Global Affairs Institute, co-panelists: Charlotte Duval-Lantoine, Bibora Imre, Alex Rudolph, Cautious by Design: Strategic Culture and Canada's Military Modernization on the panel 'Military Culture and Emerging Technology in Canada'.

The current generation of emerging technologies, particularly automation, artificial intelligence, and robotics, holds the potential to radically reshape the character of warfare in the contemporary era. In many respects, these technologies may represent the long-anticipated realization of the Revolution in Military Affairs hypothesis advanced during the 1990s and early 2000s. These technological innovations are already driving changes in force structure, procurement decisions, and doctrinal development across many Western militaries. However, countries like Canada have struggled to adapt to this evolving strategic landscape. This trend has intensified the need for analytical frameworks to understand the shaping and constraining factors on the integration of the latest generation of technologies into military organizations. The existing literature on military innovation studies has identified strategic culture (and subcultures) as a key variable that plays a critical role in influencing how defence communities engage with new technologies. This paper examines the Canadian military's recent efforts (or lack thereof) to adopt and integrate emerging technologies. It argues that strategic cultural analysis is essential for explaining why Canada has lagged behind many of its military peers. Furthermore, it offers insights into how strategic culture shapes a country's relationship with today's increasingly autonomous and digitally driven technologies.

Working Group 4: Leadership, Command and Control, and Basic Competences

Dr, Lobna Cherif, Royal Military College of Canada, , Character-Based Emotional Intelligence: A Conceptual Mapping for Military Leadership.

This conceptual study highlights the importance of aligning performance and well-being within the Canadian Armed Forces (CAF). It proposes strengthening military leadership through an integrated approach grounded in emotional intelligence (EI) and character strengths (CS). EI, as conceptualized by Goleman, includes four domains and 12 key competencies, while the VIA classification by Peterson and Seligman identifies 24 CS that contribute to human flourishing. Following a brief literature review on EI's role in leadership and well-being, the study underscores that character strengths remain underexplored in military contexts. Yet, strengths like curiosity, creativity, social intelligence, and creativity may act as key enablers of emotional competencies such as emotional self-awareness, adaptability, empathy, and conflict management. The study proposes a conceptual mapping linking each EI competency to specific CS, suggesting that targeted activation of these strengths can enhance decision-making, stress regulation, and team motivation. Practical applications are outlined, including leadership training, coaching initiatives, and workshops on stress management and collaboration.

Eric Begin, ROUNDTABLE Advancing Science for Critical Senior Enlisted Leaders, Developing Science for Command Senior Enlisted Leaders, Panel Discussion and Book Project

In contemporary military operations, Command Senior Enlisted Leaders (CSELs) are part of a Command Team, supporting unity of command and serving as the relational backbone that secures cohesion, coordination, and adaptability—yet scholarship on the military profession has largely centered on the role of the Officer.This Panel reframes Senior Enlisted Leadership as a distinct professional expertise in the human domain—the relational field of trust, norms, tacit knowledge, and routines through which units coordinate and adapt. In this domain, CSELs translate command intent into collective action: they connect crews and companies, set pace and standards, sustain confidence and tempo, and manage the friction where plans meet practice. Their careers are "inverted": starting as technical specialists, they broaden—through experience—into relational generalists who steward culture, learning, and discipline across units; their leadership is collective and networked rather than merely individual or positional. Enlisted leadership functions as a human combat technology that flourishes under mission command in democratic systems and is difficult to reproduce in authoritarian ones—together, these confer a durable competitive edge. Yet within an otherwise tightly codified military organization, the Command Senior Enlisted Leader (CSEL) embodies a structural paradox: possessing little formal authority but considerable functional influence—enabling forms of leadership that formal command cannot readily perform.The panel asks: What do command SELs do, and how do they prepare? What should they learn early—how early, and where? What are the implications of the inverted career? How do NCOs differ from officers, and how do they leverage their position as senior enlisted leaders?

Dr, Peter Papler, NATO Mountain Warfare Center of Excellence, Bad Leadership: Slobodan Milošević vs Donald Trump,

Dozens of frameworks about Good Leadership are developed compared to almost absent about Bad Leadership. Barbara Kellerman's Bad Leadership framework offers a powerful lens for analyzing the leadership styles of both Slobodan Milošević and Donald Trump in military area, whose ideologies—Greater Serbia and Make America Great Again (MAGA), respectively—enabled and reflected unethical leadership. Milošević's leadership, as driven by the Greater Serbia

ideology, fits categories of evil, insular, and corrupt leadership. He manipulated ethnic identity to foment division, leading to brutal wars and atrocities during the Yugoslav breakup. His leadership was effective in mobilizing Serbs but devastatingly unethical, culminating in war crimes. Followers enabled his leadership by prioritizing security, ethnic solidarity, and a false promise of national restoration over morality or critical scrutiny. His regime thrived on systemic propaganda, repression, and fear—hallmarks of evil leadership. Donald Trump's leadership under MAGA ideology aligns with rigid, callous, and corrupt leadership. Though less overtly violent than Milošević, Trump weaponized nationalism and grievance politics, fostering division along racial, economic, and political lines. He showed rigidity in rejecting science and expert advice (e.g., during the COVID-19 crisis) and callousness in his dismissive responses to minority struggles and democratic norms. His leadership, like Milošević's, was enabled by followers seeking simplicity, stability, and identity affirmation in a chaotic world. The results of their leadership were profoundly destructive. Milošević presided over the violent disintegration of Yugoslavia, leaving behind failed states, ethnic cleansing, and decades of regional instability. Trump, though operating in a more robust democratic context, contributed to the erosion of democratic norms, deep polarization, dubious peace deals (Afghanistan, Gaza, Ukraine) and assault on the U.S. Capitol and the democratic process. Bad leadership was systemically made possible by followers. Results confirm thesis that leadership when undergirded by potent ideology, is a shared social disease with dire consequences.

Ms. Anne Elise Reiffenstein, Royal Roads University, Command Rewired: AI, Distributed Cognition, and the Reconfiguration of Military Leadership

As military operations increasingly incorporate artificial intelligence (AI) and autonomous systems, the traditional human-centred model of command needs to be reconfigured. This paper applies the Pigeau-McCann command model, describing command as the balanced integration of competence, authority, and responsibility, to examine how human-machine teaming (HMT) alters the nature of military decision-making. Drawing on the theory of distributed cognition, I argue that command is no longer solely a human function but a socio-technical process distributed across commanders, operators, AI systems, and algorithmic tools. In this context, competence is redefined as tactical knowledge with the ability to supervise, interpret, and integrate machine-generated outputs. Authority is influenced by the persuasive force of algorithmic recommendations and the opaqueness of AI logic. Once clearly held by human commanders, responsibility becomes diffused, raising significant challenges for accountability and ethical oversight. Military command doctrine must evolve to maintain operational effectiveness and ethical decision-making in AI-enabled environments. Command in the era of human-machine teaming requires more than hierarchical authority—it requires leaders capable of navigating distributed decision environments and ethically governing intelligent systems.

Mr Andre Korsmo Berntsen, The Military Academy at ETH Zurich, Cognitive Congruence, Friction, and Team Performance Under Tactical Stress.

An infantry squad moves through an urban environment, faced with chaos, noise and limited time. The squad leader makes quick, intuition-based decisions and puts them forward as orders to the soldiers. Some respond immediately; others hesitate, seeking the reasoning behind the order. When the individual cognitive styles within a group do not align, cognitive friction might increase the risk of the group fragmenting and facing decision paralysis. This paper aims to answer the question of to what degree congruence in cognitive style (analytical vs. intuitive), both dispositionally (trait) and situationally (state), affects a squad's mission effectiveness. Building upon dual-process theory (Kahneman, 2011), the Recognition-Primed Decision model (Klein, 1998), and person–team fit theory (Kristof-Brown et al., 2005). 85 soldiers in 12 infantry squads underwent a complex simulation mimicking a real-life scenario. The exercise had a high degree of uncertainty and stress. Stable cognitive style was measured at the individual level using the Rational–Experiential Inventory (REI-40; Pacini & Epstein, 1999), while situational cognitive style

was measured immediately post-scenario using the Cognitive Processing Questionnaire (CPQ; Mayiwar, Hærem, & Furnham, 2023). Mission success was measured across four dimensions by multiple subject matter experts: mission accomplishment, tactical proficiency/doctrinal correctness, adaptability, and overall performance. Congruence is measured as the deviation between soldiers and squad leaders, as well as individually between all members. Data was collected at a Swiss military recruit school. Planned analysis includes nested linear regression models to account for the hierarchical data structure, plus exploratory tests for non-linear effects. The study aims to develop an empirically grounded model for trait-state cognitive styles effect on the composition of small unit teams in operative stress. The study contributes by addressing an under-researched aspect of how cognitive congruence affects real-time tactical decisions.

Dr Hans Christian Breede, Canadian Defence Academy, nil., Embracing the Paradox: Military Doctrine Through VUCA.

In what is increasingly being referred to as the second machine age (McAfee 2019), the convergence of data, compute, and algorithms that constitute the broad class of technology commonly referred to as artificial intelligence is reshaping social life. This reshaping is compounding a world that is already volatile, complex, uncertain, and ambiguous. The impact of AI-accelerated VUCA is reshaping war as well (Wilner 2018, and Pearson, Jolley & Evans 2018). While much of the work on this important topic is focused on the technological forces shaping war (Scharre, 2018, and Kello 2017), far less emphasis has been placed on the impact that AI-accelerated VUCA will have on how we think about planning and leading military operations in the future. This study will examine the literature on how military organizations adapt (such as work by Horowitz 2010) and propose a theory for how militaries can institutionalize the process of adaptation, testing the theory against the English speaking militaries of Canada, the United States, the UK, Ireland, Australia, and New Zealand. The study will illustrate a path forward that can reconcile the paradox of doctrine with that of creating an adaptive learning force, capable of meeting the challenges of the coming decades. Ms, Sanna Roxanne Hirvonen, Swedish Defence University (Department of Leadership and Command & Control) & University of Gothenburg (Department of Work Science), , New Recruits, New Realities: Understanding Young Conscripts' Journeys Through Military Training, The paper explores how young conscripts in the Swedish Armed Forces experience basic military training. Drawing on qualitative interviews with conscripts at the end of basic training, the research identifies key mechanisms that contribute to various forms of organizational commitment early in a military career. Building on existing theories of organizational commitment and commitment profiles, the study examines how conscripts reflect on their future ambitions, whether within or outside the military, and how their experiences in training shape perceptions of career, loyalty, and personal development. By highlighting the lived experiences of conscripts, the research aims to contribute to a deeper understanding of how organizational commitment is formed in a military setting. Additionally, the findings point to practical implications for staff retention strategies and offer insights into how military service experiences affect young adults' transitions into civilian life, family roles, and further military engagement. The paper is currently a work-in-progress, as part of my PhD project.

Professor Eric Ouellet, Canadian Forces College, Russian Command Dynamics: A sociological primer redux**.**

Under the leadership of Vladimir Putin, the Russian Federation has strived to re-assert itself as a major power. Although the future of Russia is far from assured in demographic terms, as well as in economic terms, some analysts have underlined that the Russian military has not only improved in terms of equipment and readiness, but also in organizational effectiveness. Some of those military improvements were noted in the particular realm of command, both at the tactical and strategic-political levels. This paper proposes an updated return to an initial assessment published

prior to the 2nd invasion of Ukraine by Russia in 2022, about their propensity for social innovations related to command and their institutionalization, in light of recent events. Geert Hofstede well-known concepts of power distance and uncertainty avoidance have been used to explore the more fundamental social and cultural dynamics of Russian military. This lead to highlight some specific social and cultural patterns about decision-making found in both the Russian society and military across time. Given the wide applicability of these patterns to explain command relationships in Russia, Hofstedes approach has been found as a valid entry point to understand Russian command today. Specifically, the greater innovative and imaginative practices shown by Russian SOF in non-military roles and the social greater diversity found among the trusted operators in the Kremlin appear to be genuine social innovations. However, they also appear to be the result of necessity, and they are limited in scope and potential for institutionalization. This pre-2022 assessment was proven correct, and in spite of the Russian necessity for innovation in the post-2022 invasion of Ukraine, the Hofstede framing of social-cultural forces remains a valid lense to analyze Russian command.

CAPT U.S. Navy (ret), William Combes, Baltic Defence College, Navigating Complexity Through Human-AI Collaboration: Lessons from PME Workshop Design for Command and Control in an Era of Accelerating Change.

Military leaders have always operated in environments characterized by volatility, uncertainty, complexity, and ambiguity (VUCA). However, today's security landscape features unprecedented technological acceleration that compounds these challenges for decision making. Drawing on Snowden's Cynefin® framework, this paper examines how human-AI collaborative approaches can help navigate complex environments where cause-effect relationships are only discernible in retrospect and chaotic situations where immediate stabilizing action is required before patterns can emerge. The research presents an embedded case study of an AI-assisted workshop on AI integration in Professional Military Education (PME) conducted at the Baltic Defence College. This recursive approach of using AI to explore AI implementation created a unique laboratory for examining human-AI collaboration in practice. Building on previous research on digital transformation in PME, the study analyzes how this collaborative methodology generated insights for command and control applications in complex operational environments. The findings reveal three critical patterns of effective human-AI teaming that emerged from the workshop process: (1) AI excels at identifying emergent patterns across disparate information sources, while humans provide contextual judgment about their significance; (2) in time-constrained scenarios, AI can rapidly generate multiple response options while humans maintain responsibility for ethical and strategic evaluation; and (3) the most effective collaborative frameworks maintain clear human primacy in defining objectives while leveraging AI for continuous environmental sensing and adaptation. The best practices identified through this process offer practical guidance for military organizations seeking to implement human-AI collaborative approaches to command and control in complex and chaotic domains, with potential applications to other sectors facing similar decision-making challenges under conditions of uncertainty and rapid change. These collaborative models complement traditional decision-making approaches by maintaining human judgment while potentially enhancing responsiveness to rapidly evolving situations. The paper concludes with recommendations for implementing similar experimental approaches to develop context-specific human-AI collaborative frameworks across military functions.

Working Group 5: Military Law and Ethics

David Last, Royal Military College of Canada, Chaplaincy, Ethics and Social Cohesion.

> This proposal for international online workshops and a panel at ISMS in Amsterdam, 13-15 October 2025, emerges from discussions at ISMS Stockholm in September 2024. It draws on discourse over many years about the role of chaplains in the ministry of reconciliation, both within the military community and by engaging key religious leaders in society. Religious leader engagement emerged from expeditionary peace support and stability operations, including those in the former Yugoslavia and Afghanistan. More recently, questions of moral injury and healing have entered the discourse of chaplaincy tasks. Religious leaders can change how people think about things—the third face of power. This has fallen out of fashion as a military function but is alive in many groups within society. The power of religious ideas to heal but also to disrupt and damage bears examination. **The Inner Ministry**: Ministering to Military Members and their Families Western military forces and societies have become more diverse and less religious. At the same time, other caring professions have emerged to share many of the psychological and social support functions formerly the preserve of the chaplaincy and its special relationship with commanders. Ministering to members of the military and their families has become a boutique retail occupation, less supported by collective expressions of faith. Religious involvement in public events such as change of command parades, memorials, anniversaries, and consecrations has diminished. Has this left a gap in the collective lives of units and formations and in the individual lives of soldiers and their families? Are Military chaplains necessary or useful? Can they support recruiting and retention? Are they good for morale and unit cohesion? How are military chaplains developed, employed, and perceived by enthusiasts and skeptics in their military constituencies? **The Outer Minister**: Interpreting Schisms and Healing Social Fragmentation Many countries have a religion as part of their identity, but few invest in supporting, expanding, or proselytizing, and doing so is generally frowned on in open societies espousing liberal values. Low natural birthrates and high immigration are causing rapid social change with attendant frictions. Some tensions are actively manipulated by parties hostile to the state and its values, including foreign states, ideological networks, and religious groups. These forces can combine to weaken social cohesion. Toxic polarization reduces the capacity for governance and security in the face of natural challenges and enemies of the state. Can chaplains support community outreach, analyzing and exploring schisms, and information campaigns to build social cohesion? Are religious leaders appropriate champions to combat extremism and social fragmentation? How can they work most effectively with other sources of security expertise and leadership? How do they contribute to ritual and public ceremony that builds a cohesive sense of national identity?

Dr Florian Demont-Biaggi, MILAC at ETH Zurich, Deep Morality, LOAC, and the Relevance of Military Practices for War Ethics.

> Understanding the relation between morality and the laws of armed conflict is a central problem for contemporary war ethics. Mainstream war ethics draws on a notion of deep morality, contrasts it with the laws of armed conflict, and assigns conceptual priority to morality (McMahan 2004). Uwe Steinhoff (2021) discusses and rejects this view. For him, legal regulations and the practices in which they are employed are the basis of a sound approach to war ethics. Steinhoff's law-first approach misses to give due credit to the relevance of military practices for war ethics. Going back to Michael Walzer's notion of moral philosophy as interpretation (Walzer 1993), I read the war convention as based on practices that cannot be limited to legal practices (Walzer 2015). From that point of view, it is important to consider that some armed forces explicitly commit themselves to prioritize respect for human dignity over the laws of armed conflict whenever there are tensions between legal and moral constraints. This, however, is also an expression of the constitutional values and the democratic processes on which the political mandates for these armed forces (and their military practices) are based. The central claim of the paper is, hence, that

war ethics is best understood as deriving its moral substance from military practices, understood together with the legal practices they involve and the agreement-constituting processes on which they are based.

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Dr Gita Leitlande, National Defence Academy of Latvia, The Applicability of Walzer's Supreme Emergency Concept in a War against Russia.

The research is related to the Just War theory and its continuous relevance for Europe, assuming that other European states (apart of Russia, which in practice has demonstrated a complete disregard for the Just War theory as something to be followed) by and large consider the Just War theory as something to be observed. For Just War theory provides an ethical guidance not only for soldiers, but also for entire states and societies. The topic of my research is topical due to the ongoing war in Europe, initiated by Russia against Ukraine, but, potentially, also for the future considerations for European countries, if a situation comes to it (given Russia's geographical proximity to Europe and a track record of aggressive behaviour which includes use of military force). That is why it is directly related to our own presence and future, and, thus, needs to be studied. The Russia's current aggression against Ukraine is what is happening before our eyes and it is military ethicists' duty to follow it from the analytical, reflective perspective, including, from the perspective of the Just War theory. This research constitutes a contribution to this effort. This particular research focuses on the supreme emergency concept, which was first formulated by the renown military ethicist Michael Walzer, and since then it has been refined, hotly debated, and criticized. My research will discuss the supreme emergency concept itself; Russia's performance history, including the ongoing war, regarding criteria relevant for supreme emergency to be allowed; and what we can conclude from this.

Professor ŠAKOČIUS ALVYDAS, The General Jonas Žemaitis Military Academy of Lithuania, Jurisdictional resilience of the Baltic States and management of the risks of lawfare.

In the Baltic States, the resilience of national jurisdictions is an important element of comprehensive defence because due to their size and geographic location, in the event of external aggression, they have little, if any, time and resources to modify their legal framework and law enforcement to meet the needs of war, reacting to the circumstances when international law is unable to deliver justice. The national legal framework also ensures that defence resources are available and ready to respond to hybrid and conventional military threats. Research was aimed on the discussion the concept of legal warfare impact and the challenges faced by the Baltic jurisdictions. It also was subjected on identification and discussion of potential threats to the integrity of the legal systems of the Baltic States and the measures that could be put in place to ensure the rule of law and democratic governance in the event of a crisis or external aggression. Research had found out the Baltic legal systems, based on the principles of democracy and the rule of law, as an essential element of national resilience. These systems need to be flexible but strong and able to withstand external and internal shocks. The lawfare is a real threat from authoritarian states, especially those that foresee the Baltic States as their "zone of influence". The analysis had confirmed that lawfare can be used for political and military manipulation to influence the international status and rule of law of the Baltic States. Such threats need to be proactively prepared for, using both national and international legal instruments. While the rule of law is well established in the Baltic States, hybrid threats, information attacks and manipulation of

legal norms, pose a major challenge. Resilience needs to be continuously strengthened safeguarding the stability of the rule of law and democratic institutions.

Dr Mihaly Boda, Ludovika University of Public Service, What is the relationship between justice and war?

The importance of just war theory, or justice in war more broadly, is not perceived in the same way within the military and military education. One of the two extreme views is that war is a phenomenon with its own laws, unrelated to justice and moral and ethical values in general, and therefore of no relevance to just war theory. The other extreme view is that war is a human activity in which justice and other moral and ethical values therefore have a role. According to the rapporteur, truth lies somewhere between the two extremes, in a complex approach. Indeed, one can distinguish between several roles of justice, which have more or less relevance to war. Thus, we can speak of the theoretical-philosophical role, which is relevant to the conscience of individual soldiers; the theoretical-legal role, which has significance to the justification of international legal norms; the role connecting to military history, which is relevant to the study of past wars; the political-ideological role, which is important for the relation of military and civilian spheres within the state and for the soft power that binds states together; and the political-propaganda role, which is important for influencing the citizens of a hostile or merely counter-interested state. By examining these roles, this presentation adopts the position that justice and war are not inseparable concepts, but their relationship is multifaceted and can be judged in different ways.

Acting Sub-Lieutenant Isaac Nitschke, Royal Canadian Navy, 'Seas'ing the Initiative: Exploiting the Governance Gaps of the Maritime Domain in Pursuit of Revisionist Agendas

The maritime domain has been of increasing relevance over the past couple of years with China's island building, the 2021 blockage of the Suez Canal, Houthi attacks on shipping in the Bab al-Mandab, and most recently, purposeful sabotage of undersea infrastructure, including cables and pipelines, these events have stirred discussions of maritime hybrid warfare and maritime gray zone operations. These fit into the broader coercive agendas of revisionist actors. The current literature often takes a regional focus, examining the near waters that the state and non-state actors seek to influence. However, the maritime domain is one of the global commons governed by international convention and common practice. By rethinking hybrid and gray zone warfare in the maritime domain, particularly in China's case, as a form of competitive norm entrepreneurship, we can examine how actors exploit current gaps in maritime governance structures to advance their geopolitical agenda. More specifically, in revising the norms of the international order. In other words, hybrid and gray zone warfare in the maritime domain, unlike their land-based counterparts, are tools for reshaping or undermining international norms to create a parallel international order. This paper will explore various elements of China's maritime foreign policy as a form of norm entrepreneurship to assume a leadership role in the maritime domain. In undertaking this approach, the paper will examine China's use and selective enforcement of fisheries, interpretation of international law, and the employment of China's maritime assets to create a favourable environment for China's policy aims.

Dr Malwina Ewa KOLODZIEJCZAK, War Studies University, Cyber Warfare in the Republic of Poland: Actions In Cyberspace That Could Lead to Martial Law

This paper examines the legal and practical implications of cyber operations as potential triggers for the declaration of martial law in the Republic of Poland. Although current law allows for such a response in the case of external threats, including actions in cyberspace, it lacks a clear definition of what those actions entail. The absence of legal thresholds for the scale or impact of cyberattacks creates uncertainty. Drawing on EU regulations and cybersecurity frameworks, the paper highlights the need for more precise legal criteria to address modern hybrid threats.

Prof LCol Joris van Wijk, Royal Netherlands Marechaussee, Vrije Universiteit Amsterdam, Welmoet Wels, The Military and Battlefield Evidence: an (un)easy combination?

> In any war fighting scenario, either for own (or coalition) territorial defence or in the context of international peace and security, the armed forces might encounter possible evidence of international crimes, such as serious violations of the laws of warfare, crimes against humanity or genocide. What is, or should be, the role of armed forces in dealing with evidence of such international crimes committed by third parties? At this moment, no doctrine exists on how and when to collect, analyse or share with this so-termed 'battlefield evidence'. Based on concrete scenarios we will in this presentation, together with the audience, explore if and how armed forces can and/or should engage with information that may be used to prosecute perpetrators of international crimes.

Mr., Ian Douglas Ferrier, Lancaster University, The Folly of Falsehood: Information Disorder as a Path to Strategic Ruin.

> Grey zone actors continue to utilise information disorder to achieve their strategic objectives. This includes the weaponisation of human rights, the initiation of armed conflict based on the perversion of jus ad bellum, and the breakdown of jus in bello through misinformation, malinformation, and disinformation. Malign actors attack the foundation of the international rules-based order, attempting to supplant it as they establish the foundations of authoritarian international law. The doctrine of effective control, state sovereignty, and the right of self-defence will be examined with respect to information disorder. This includes the role of disinformation in India's potential *causus belli* against Pakistan in early 2025. It examines state responsibility in the curtailment of information disorder where information shared by apparent non-state actors within a state's defined territory prolongs or intensifies conflict. Finally, it considers the use of disinformation as a substitute for military means and the implications for the law of armed conflict. It examines the disconnect between the conventional wisdom that only an armed attack will give rise to the right to self-defence and the assertions of malign actors. The essay also considers countermeasures, including the need for the international community to develop resilience against information disorder within the confines of concept-rich rule of law. This includes the importance of a whole-of-society approach to countering information disorder and the role of media outlets.

Working Group 6: Security and Defence Policy

Ms (MA) Julia Gabriela Czajka, War Studies University, Defence diplomacy as a tool of shaping international security.

Defence diplomacy is one of the main specialized instruments of a state's foreign policy. It concerns international military relations, so it has a permanent place in the system of national security and international cooperation. I will present the essence of defence diplomacy, areas and instruments of defence diplomacy, and defence diplomacy as an Instrument of shaping international security.

Major Thiago Bentes de Mello, ECEME (Brazilian Army), COP30 in Brazil and Defense Studies: a proposed contribution to the debates.

This work aims to investigate how Defense studies can contribute to climate discussions at COP30, which will take place in the city of Belém, Brazil, in November 2025. The research adopts a qualitative approach, with a descriptive and analytical emphasis, beginning with a bibliographic and documentary review that presents the main historical and conceptual milestones related to COP30, Defense Studies, and the international climate agenda. The analysis includes the role of the Brazilian Armed Forces in environmental missions, highlighting practical experiences and relevant contributions. The results emphasize the importance of integrating defense issues with environmental concerns, suggesting that the approach of Defense studies can provide a valuable perspective for discussions on climate change. It concludes that collaboration between the defense and environmental sectors has become essential to address the challenges posed by climate change.

Keywords: COP30; Defense Studies; Climate Change.

Professor, Jaroslaw Gryz, War Studies University, Russia’s War With Ukraine and its Consequences for NATO.

The second phase of Russia’s war against Ukraine, launched on 24 February 2022, prompts us to take up the issues of “lessons learned” for NATO, as an alliance, and for the Member States in the context of ensuring collective defense and preparing armed forces for it. In addition, to verify the ways of generating readiness of the societies of the broadly defined West, with the participation of South Korea and Japan, to confront the challenges related to the efforts of the Russian Federation and China to revise the existing international security architecture, and to adapt NATO to new conditions. It concerns the fundamental conclusions from strategic, operational and tactical activities related to the use by the Russian Federation of its armed forces as a tool of policy against Ukraine and the North Atlantic Alliance and the European Union. The aim of the study is to analyze strategic, operational and tactical activities in terms of the identified solutions that the parties to the war have carried out and implemented against each other, indicating those that should potentially be adapted by NATO.

Professor SVAJONĖ BEKEŠIENĖ, General Jonas Zemaitis Military Academy of Lithuania, Silo 5a, LT-10322 Vilnius, Lithuania, Building Cognitive Defence Mechanisms Against Adversarial Cyber and Information Warfare.

The rising prominence of adversarial information and cyber warfare presents a significant challenge to modern armed forces, requiring robust psychological and cognitive defences among military personnel. This study investigates key developmental trends in enhancing soldiers’ resistance to Information Warfare Threats (IWT), aiming to strengthen their readiness for modern operational environments. Drawing from an extensive literature review, five core IWT dimensions were identified: Awareness of Resistance to Informational Threats (A), Information Dissemination

Sources (B), Impact of Information Threats (C), Decision-Making in the Environment of Information Attacks (D), and Strengthening Resistance to Informational Threats in LAM (E). These dimensions reflect a holistic understanding of IWT's psychological, interpersonal, and systemic impacts. To assess interrelationships among these dimensions, expert evaluations were collected using linguistic pair-wise comparisons and analysed through a trapezoidal fuzzy DEMATEL method. The analysis revealed three primary causal dimensions—Awareness (A), Impact (C), and Strengthening (E)—as key drivers of cognitive resilience. Notably, the Decision-Making (D) dimension emerged as a central node, aligning with prior research emphasizing its influence on soldiers' adaptive responses under information pressure. The findings contribute to the strategic development of cognitive defence mechanisms by identifying critical leverage points for training and operational planning. Practical implications include the prioritization of targeted educational and psychological resilience programs focused on improving awareness, adaptability, and decision-making in the face of propaganda and cognitive manipulation. Furthermore, the fuzzy DEMATEL methodology proved valuable in modelling the complexity of IWT influence structures and offers a replicable framework for resilience assessment in defence contexts. These insights underscore the necessity for military organizations to proactively evolve cognitive defence strategies in alignment with evolving hybrid threats, ensuring that future warfighters are mentally equipped to counteract the manipulative tactics of modern information warfare.

Prof Dr Brosh Menahem Teucher, USA, Democratic Predation: Resource Competition in a Fragmenting World Order.

As the global order fragments under multiple pressures, small democracies increasingly engage in predatory behaviors against fellow democratic states. This paper examines a growing trend where resource scarcity, great power competition, and domestic pressures drive democratic nations to prioritize national interests over collective security. Drawing on international relations theories extending beyond democratic peace, the paper identifies multiple patterns of democratic predation, with particular focus on critical minerals competition manifested in the 2025 agreements between Ukraine and major Western democracies. As an example, the paper closely examines the UK's 100-year partnership with Ukraine, the bilateral security agreements with France and Germany, and the US-Ukraine minerals deal to demonstrate these competitive dynamics, where ostensible military support masks resource extraction motives. The paper explores the military-strategic implications for small democracies, proposing diplomatic, informational, economic, and military countermeasures these states might employ to protect their interests without undermining alliance cohesion. The research reveals how critical minerals access increasingly shapes defense capabilities and interstate relations, suggesting fundamental reconsideration of security planning that has traditionally focused on authoritarian threats rather than democratic partners' reliability. This emerging pattern challenges core assumptions about democratic cooperation, with significant implications for small states navigating an increasingly resource-constrained security environment.

Dr Agniete Zotkeviciute Baneviciene, General Jonas Žemaitis Military Academy of Lithuania, The Resilience of Baltic States to the Threats of the Political Security Sector.

The foundation of a state's overall security is political security which encompasses a set of measures aimed at preserving the sovereignty, territorial integrity, political independence, and constitutional order of the state. The Baltic States – Lithuania, Latvia, and Estonia – have faced heightened vulnerability in the political security sector for more than thirty years, since regaining independence in 1990-1991. This vulnerability stems from their geographical location, historical experiences, and relationships with neighbouring countries, particularly Russia. The aim of this chapter is to provide analytical insights into the systemic resilience of the Baltic States to threats in the political sector by examining both domestic political security elements (such as the political party system, judicial independence, media freedom, and respect for minority rights) and external threats posed by such actors as Russia, China, and Belarus to the political security of the Baltic

States. The analysis suggests that the Baltic States, as consolidated democracies, are characterised by resilience to threats in the political sector. External threats are a driving factor behind the continuous efforts of the Baltic States to strengthen their political security sector by fostering greater regional cooperation and integration with Western security structures such as NATO and the EU. Internal political challenges, including the rise of populism, attempts to undermine judicial and media independence, and issues related to the integration of ethnic minorities, pose potential risks to the internal political security of the Baltic States, requiring constant monitoring and responsive measures. Only by systematically reinforcing internal political security elements can these states maintain stability and resilience in an ever-changing geopolitical context.

Dr Marlena Blicharz , War Studies University, Poland, Role of cultural diplomacy in security policy. Example of Republic of Korea.

The aim of this article is to explain the effectiveness of cultural diplomacy in the Republic of Korea and its impact on security policy. The scale of the phenomenon, in order to illustrate its effectiveness, should be supported by an introduction to the real situation in the Korean states after WWII and later after the Korean War (1950-1953). After the Korean War, the division of the Korean peninsula into two independent states with opposing political systems was established - Democratic People's Republic of Korea (DPRK) supported by the communists in the north with the juche system and the democratic Republic of Korea supported by the Americans in the south. The Korean states were extremely destroyed as a result of warfare, it was necessary to rebuild from the ashes, and confront new conditions and resources (or rather their lack). Taking the above into account, the economic success and, as a consequence, the cultural diplomacy of the Republic of Korea and its scope, form an interesting topic for analysis from the point of security policy. The global scope of the Korean phenomenon gained its own name "Hallyu"/ "Korean wave". Hallyu, which initially included popular music, film industry, and the cosmetics industry, has expanded its reach to include more and more specializations, also entering the strategic area of security policy. The author of the paper aims to explain the phenomenon of the effectiveness of cultural diplomacy designed in Seoul and to analyze its influence, the scope of which is evidenced by the new term defining Korean cultural diplomacy - Koreanization.

Dr, Jānis Bērziņš, National Defence Academy of Latvia, Cognitive Warfare and Economic Neoliberalism: Democratic Resilience in Post-Crisis Europe.

This paper examines the impact of post-crisis austerity on democratic resilience across European Union member states by comparing those that implemented severe fiscal retrenchment with those that maintained more moderate budgets. Utilizing European Social Survey data from 2008 to 2022, the analysis focuses on Greece, Spain, Portugal and Italy as cases of intense austerity alongside peers that experienced limited cuts. Economic strain is measured by subjective evaluations of household and national finances while institutional trust is assessed through confidence in parliament judiciary and public agencies. Democratic resilience is operationalized via indicators of conspiracy belief and endorsement of a strong executive bypassing legislative oversight. Findings indicate that in economies experiencing substantial spending reductions low institutional trust and dissatisfaction with democratic processes tend to manifest as conspiracy thinking or support for authoritarian leadership. In contrast limited austerity contexts reveal weaker links between economic frustration and illiberal attitudes. Institutional trust emerges as a moderating factor that filters how economic grievances translate into political behavior. Where trust remains relatively robust dissatisfaction seldom drives citizens toward anti-system sentiments. The results underscore that the political consequences of austerity are contingent upon citizens' perceptions of state legitimacy and responsiveness rather than austerity measures alone. This study contributes to scholarship on democratic backsliding by highlighting the role of policy-driven

economic conditions in shaping political vulnerability and susceptibility to covert influence operations.

Professor Marta Gebska, War Studies University, Security, Geoeconomic and Geopolitical Challenges of Three Seas Initiative after the 10th Summit in Warsaw.

In April 2025, the 10th summit of the Three Seas Initiative took place in Poland. During the summit, as every year, a joint declaration of states was presented, which, among other things, welcomed Spain and Turkey as new strategic partners of the Initiative and Albania and Montenegro as new associated participating states of the 3SI. In the joint declaration, Hungary broke out on six points. They did not agree with the assumptions of further enlargement and the role of the European Union, they did not condemn the Russian war against Ukraine and the support for it by third countries. Hungary did not reaffirm its support for Ukraine, its sovereignty and territorial integrity within internationally recognised borders and its support for reconstruction. It has not expressed a willingness to increase pressure on Russia to weaken its ability to continue its aggressive war. They also indicated a different approach and did not express their conviction that those who gave the orders or committed war crimes in Ukraine must be held accountable. Such a different approach undermines the unity of the states in the region and poses new challenges for security, geopolitics and geo-economics.

Ms, Débora Bedim Loures, Brazilian Army, Army Command and General Staff College, From Haiti to the Congo: The Evolution of Brazil's Role in Peacekeeping Operations and Its Place in National Defense Policy.

This article aims to analyze Brazil's participation in United Nations (UN) peacekeeping operations between 2000 and 2023. The objective is to identify the factors that influence Brazil's decision to participate—or not—in peace missions through the deployment of troops. The research adopts a comparative and empirical approach, examining two distinct cases: MINUSTAH (Haiti) and MONUSCO (Democratic Republic of the Congo). Haiti represents a landmark case in which Brazil deployed large troop contingents, while in the Congo, Brazilian involvement was limited to military observers and staff officers serving in administrative functions. Drawing on official defense documents, UN reports, and specialized literature, the article seeks to identify patterns in Brazil's behavior based on risk perception, strategic relevance, and alignment with national defense policy. Over the years, Brazil has opted to participate in missions with low operational risk and high diplomatic potential, as exemplified by MINUSTAH. In contrast, it has avoided engagement in high-intensity armed conflict scenarios with low strategic relevance, as in the case of MONUSCO. Despite the prominent role played by Brazil in MINUSTAH, its refusal to contribute troops to other peacekeeping missions signals an important shift in the country's defense policy and multilateral diplomacy. Understanding Brazil's patterns of participation is therefore essential for assessing the limits and possibilities of the country's role in international security, particularly in a context of shifting geopolitics and the evolving agenda of peace operations. Furthermore, the study contributes to the broader debate on the role of middle powers in international security, focusing specifically on how Brazil balances ambitions for international visibility with a preference for low military exposure. In this regard, national defense policy is understood as a central element shaping the country's external action.

Dr Ringailė Kuokštytė, General Jonas Žemaitis Military Academy of Lithuania, Defence Under Pressure: Balancing Strategic Support for Ukraine with National Resilience in the Baltic States.

The paper examines the Baltic states' national defence strategies, including their implementation, as a "stress test" in the context of Russia's war against Ukraine. Specifically, it highlights the dual challenge they face, which is, on the one hand, providing hefty strategic support to Ukraine to strengthen its military capabilities while, on the other hand, simultaneously reinforcing their own national defence capabilities and deterrence, including total defence measures focused on civil

(whole-of-society) resilience-building. The paper analyzes whether the Baltic states' extensive military assistance to Ukraine, along with their conventional reinforcement measures, has left unattended civil defence and resilience. While the Baltic states' high level of military assistance to Ukraine reinforces their role as active security contributors rather than free riders, it also raises potential dilemmas regarding resource allocation and policy prioritization, in particular in the field o whole-of-society resilience, which tends to point to the Baltic states, albeit to varying degrees, as free riders based on NATO Article 3. The paper attempts to identify existing trade-offs, focusing on three analytically distinct dimensions of total defence: inter-institutional cooperation, private-sector engagement, and individual-level resilience.

Mr Jahangir Arasli, Institute for Development and Diplomacy at the ADA University, Russia's Quadriga of War: Patterns of Strategic Interaction of the Anti-Westen Alliance.

The 2022 Russia's attack on Ukraine transformed into a long war, which outcome is still not clear, and the end is not in sight. One of the countless effects of the war became the structuration and operationalization of a Russia-led quasi-coalition. I conditionally labelled that grouping "BRINK" – Belarus, Russia, Iran, and North Korea (this moniker is used henceforth). This particular selection stands on the premise of the direct involvement of the mentioned states in the war in Ukraine in their capacity of a main perpetrator and its three accomplices. The war in Ukraine became a catalyzing factor of the mentioned entity; however, it is possible to trace its origins rooted in the context of the evolving global dynamics long before 2022. The underlying factors that tailor the grouping together are the similar nature of ruling regimes, coextensive strategic interests, goals, and objectives, revisionist aspirations to alter the existing world order, a shared perception of competitors-adversaries, and other common denominators and indicators. Such similarities naturally condition the strategic alignment, cooperation, and coordination between the actors in the BRINK grouping, making it a spatially distributed, loosely structured yet strategically connected anti-Western pact of convenience, centered at Russia as its center of gravity and driving force. Therefore, this presentation conceptualizes the notion of BRINK and explores underlying factors, common denominators, drivers, and enablers pertinent to this entity. Furthermore, it focuses on the role of three "lower-grade" actors of the Russia-centered grouping, as well as BRINK's projection of destabilizing effects to the regions of the world, other patterns of its strategic performance. Besides, it compares dissimilar traits of alliance-building within BRINK and Western democracies. In addition, the presentation evaluates the role of China and its advantages in leading the grouping from behind. Finally, it considers West's options in countering the BRINK phenomenon.

Dr Tudor Andreea Loredana, Institute for Political Studies of Defence and Military History and Dunarea de Jos Univeristy, Security Hedging in a Fragmented Order: How Small Democracies Navigate Between Alliances, Coalitions, and Informal Security Regimes.

The fragmentation of the international order has moved from theoretical debate to observable strategic reality, particularly for small democratic states. These states now operate in a geopolitical context increasingly shaped by great power rivalry, the erosion of multilateral institutions, and the diffusion of grey-zone threats. Traditional security architectures are proving insufficiently responsive to the volatility of the current environment. While alliances such as NATO and institutions like the EU and UN continue to serve as essential pillars of collective security, their internal coherence and reliability are being questioned more frequently. In response, many small democracies are adopting security hedging strategies—an approach that neither fully replaces nor contradicts traditional alignment, but supplements it with diversified, overlapping security practices. Hedging, in this context, refers to the deliberate layering of various forms of security cooperation: formal alliances, informal and issue-specific coalitions, regional defence mechanisms, intelligence-sharing networks, and ad-hoc operational partnerships. This multi-vector strategy enables states to preserve strategic flexibility while mitigating exposure to abrupt geopolitical shifts. This paper develops a conceptual framework for understanding hedging in the

context of small democracies and tests its relevance through scenario-based modelling. Empirical illustrations are drawn from selected European cases, where the interplay between agility and coherence, and between national interests and alliance solidarity, becomes particularly visible. Ultimately, the paper argues that security hedging should not be interpreted as indecision or strategic drift. Rather, it constitutes an adaptive logic responding to a fragmented and fluid international system. For multilateral organizations, engaging effectively with these evolving practices will be central to maintaining their relevance and legitimacy in the years ahead.

Professor Kjell Erik Engelbrekt, Swedish Defence University, A Nuclear Deterrence Plan B for Europe?

Well-respected analysts and policymakers in 2025 for the first time began debating the prospects of a European nuclear deterrence capability distinct from that of the United States. This is a problematic proposition in terms of the reluctance of most European governments to bear the costs such an endeavour, but also due to a number of severe challenges facing governments that are prepared to entertain the idea of ramping up research and industrial production associated with nuclear weapons. Additional complications would presumably ensue from deliberations among stakeholders regarding basing, deployment and command and control functions. To those who are increasingly skeptical regarding the credibility of the existing US nuclear umbrella, it is no longer possible to remain passive. At present, French, British, Polish and German policymakers appear to be the most proactive in advancing the debate forward.

Dr Vidmantė Giedraitytė, General Jonas Žemaitis Military Academy of Lithuania, Promoting Civil Participation in National Security: Lessons from Lithuania.

In today's fragmenting world order, marked by growing geopolitical tensions and weakening international stability, civil participation in national security is becoming increasingly important. Traditional security efforts are no longer enough to address complex hybrid threats like disinformation, cyberattacks, and societal division. As a result, the involvement of the wider society is essential. States must find new ways to engage citizens in shaping and supporting security and defence policies. Lithuania, located in a geopolitically sensitive region, offers a strong example of how public resilience can be strengthened through active civil involvement. The purpose of this report is to reveal how civil participation can be promoted to strengthen national security, using the experience of Lithuania as a case study. The objective is to identify the main factors and measures that contribute to the formation of a sustainable and inclusive civil society, which has a real impact on the implementation of security and defence policy. The research used document analysis, comparative analysis and case study methods. The study was based on strategic and normative Lithuanian documents and international scientific sources. The study included an analysis of theoretical concepts (e.g., "universal defence", "whole-of-society approach"), an assessment of Lithuanian public policy, and a study of the activities of existing civil initiatives and organisations (such as the Lithuanian Riflemen's Union, NGO networks). Key findings show that promoting civil participation is most effective when there is a clear and supportive legal framework that enables citizens to engage in defence preparedness activities; public education and practical preparation are actively developed through formal programmes and digital platforms; and local community and NGO networks are strengthened, ensuring financial and organisational support. The Lithuanian example reveals how an inclusive, multi-layered approach to civil participation can increase not only the resilience of the state, but also public trust in institutions. This model can become applicable in other countries seeking to create inclusive, whole-of-society security and defence systems.

Keywords: civil participation, national security, universal defence, societal resilience, Lithuanian model.

Working Group 7: Armed Forces and Society

Dr Miha Šlebir, Faculty of Social Sciences, University of Ljubljana, Dr Janja Vuga Beršnak, Resilience of first responders: Individual perceptions of crises and crisis response among police, military and health first responders in Slovenia.

Today's world is increasingly characterised by complex crises that increase the sense of risk and uncertainty in everyday life. In this "risk society", preparedness for a variety of events – from terrorist attacks and geopolitical conflicts to pandemics and environmental disasters – is crucial. First responders (FRs) operate at the forefront of these events and are exposed to immediate danger and stress. Furthermore, their actions are critical as they directly impact the safety of society, as well as the quality and adequacy of a broader crisis management system. The purpose of this study is to examine the mental health, preparedness and resilience of FRs within the Slovenian military, police and healthcare systems when confronted with complex crises. Based on in-depth interviews with FRs, the research explores the experiences and attitudes of FRs in relation to their mental health and their preparedness to deal with high-stress situations. The main objectives are to understand:

- How FRs perceive the crises and their specific role in them.
- How well they feel prepared to deal with crisis events.
- How FRs perceive their professional identity and responsibility during a crisis.
- The extent to which they utilise psychological support and their experiences of anxiety and coping mechanisms.
- The reactions of their colleagues and wider society to FRs' stress and anxiety, including social discourse and organisational communication patterns.
- The importance of social expectations.

The sampling procedure was informed by two criteria: firstly, the status of FR in the Slovenian Armed Forces, Police or healthcare system; and secondly, direct experience in responding to at least one major crisis. In-depth interviews were conducted with a total of 31 FRs, including 10 officers of the Slovenian Armed Forces, 10 members of the Slovenian Police, and 11 healthcare workers (mainly doctors and nurses). The aim of our presentation is to highlight selected key findings from the analysed interviews that provide valuable insights into the lived experiences and resilience factors of Slovenian FRs.

Dr Rasa Smaliukiene, General Jonas Žemaitis Military Academy of Lithuania, Vidmante Giedraityte, Value proposition for joining the military in a descending world order: the case of the Lithuanian armed forces.

The Lithuanian Armed Forces enjoy a distinctive status as an employer, leveraging a military conscription system that engages a substantial number of young men directly after school. This mandatory service provides recruits with practical experience of military life, institutional culture and the expectations placed on soldiers. However, the transition from conscription to professional service remains a key challenge. Retaining conscripts beyond their compulsory service requires a value proposition that is not only rhetorical but also experiential, resonating with the aspirations, expectations and concerns of young adults making career decisions. The military has long maintained a distinct value proposition, positioning itself as an institution that offers not only professional development, but also a unique sense of purpose and commitment to national security. Lithuania's geographical location, sharing EU and NATO external borders with Russia's Kaliningrad region and Belarus, necessitates an increase in the number of military personnel in the armed forces, thus making this value proposition even more relevant. To examine the construction of this value proposition, qualitative research was conducted using interviews with both civilian and military experts directly involved in recruitment and personnel management within the Lithuanian Armed Forces. These interviews, conducted in person using a structured research instrument formed after an analysis of secondary sources, policy documents and psychological

studies on recruitment. This research aims to contribute to the discourse on military recruitment strategies in small democratic states facing heightened security threats. The research was performed under grant (No.S-REP-25-5) from the Research Council of Lithuania.

Dr Ieva Bērziņa, National Defence Academy of Latvia, Russo-Ukrainian war and willingness to defend a country among Latvian youth.

The will to defend the country relates to military aspects and a broad spectrum of relations between the state and society. Russia's full-scale attack on Ukraine destabilized the security situation in the region and increased the military threat to Latvia's security as well. Considering that Russia's goal in Ukraine is de facto the destruction of its statehood and national identity, this also affected state and society relations in Latvia, which is Russia's neighboring country potentially under threat. The paper answers two research questions based on 80 in-depth interviews with Latvian youth and civic education teachers from November 2023 to June 2024. First, how has the Russo-Ukrainian war affected Latvian youth's views on the citizen's duty to defend the country? As 38% of Latvia's population's native language is Russian, the research also formulates a second question - what is common and different in the will or lack thereof of young people to defend the country depending on the language used in the family? To answer the research questions, the article analyses the wider socio-political context that influences the views of young people concerning individual responsibility of national security - national identity, attachment to the state in the form of patriotism and/or nationalism, commitment to democratic values, civic education, influence of family and peers, views about compulsory military service and others.

Dr Markéta Odlová, University of Greifswald, Prof. Dr. Margit Bussman, Dr. Andris Banka,
Reinforcements Arrival Time and Willingness to Fight: a Survey Experiment in Lithuania, Does knowledge of reinforcements' arrival time affect willingness to fight among members of the public?

Existing research has established that willingness to fight is linked to a wide range of individual-level factors such as age or socio-economic opportunities, as well as various country-level factors, including geographic proximity of conflicts. To date, little work has been done on the relationship between individual-level willingness to fight and military participation in collective defense structures. In most European contexts, security and resilience are linked to participation in NATO, built on the key principle is mutual assistance to counter possible attack. However, such assistance may come with delay due to geographical and logistical challenges to movement of soldiers as well as military equipment. This is particularly relevant in the Baltic countries which are the most vulnerable in terms of possible attack Russian attack. Accordingly, we examine the effects of NATO reinforcements' arrival time on individual-level willingness to fight in Lithuania. We hypothesize that willingness to fight increases with the knowledge of earlier reinforcements' arrival time, as well as with previous military service experience. To test our causal claims, we use an original experimental design fielded among a nationally representative sample of respondents in Lithuania (n = 1,000). We manipulate perceptions of NATO reinforcements' arrival time in the case of a potential Russian attack on the country.

Professor Dorota Domalewska, War Studies University, Russian disinformation as a tool of geopolitical polarisation and fragmentation of the global order.

Fake news is strategically used to shape today's increasingly fragmented world by deepening polarisation and fuelling geopolitical tensions. Disinformation reframes narratives to justify aggression, undermine democratic institutions, and divide societies. The war in Ukraine, in particular, has become a deeply polarizing global event, with Russian disinformation campaigns actively shaping perceptions to weaken support for Ukraine. This paper examines how fake news narratives mobilise values to manipulate public opinion and legitimise Russian actions. Using a mixed-methods approach, we analysed 25 fake news articles published on pro-Kremlin platforms between 2024 and 2025. A deductive coding framework was developed based on established

value typologies (Rokeach, Schwartz, Inglehart, Huntington). Five key value categories were identified: ideological and political, security and threat-based, moral and ethical, cultural and religious, and economic and material. The analysis shows how fake news reframed these values to show Ukraine as unstable, corrupt and externally manipulated. Themes of chaos, fear, and foreign exploitation were emphasised to justify Russian aggression, fragment international consensus and undermine democratic resilience. This study highlights the instrumental role of value-based disinformation to deepen conflict and destabilise global political cohesion.

Dr Tiia-Triin Truusa, Baltic Defence College, Dr Kairi Kasearu (University of Tartu); Liina-Mai Tooding (University of Tartu), Hybrid Threats and Comprehensive Defence in Small Diverse Societies: The Case of Estonia.

This study addresses issues related to hybrid threats and national defense in small and diverse societies, with a particular focus on Estonia. The evolving security environment and the increasing prevalence of hybrid threats have diminished the public's sense of security, fostering uncertainty. Coping in such an environment requires societal resilience and unity. This presentation examines the extent to which the will to defend and threat perception are polarized among the population based on ethnic affiliation. The analysis is based on data collected through the "Public Opinion and National Defense" survey commissioned by the Estonian Ministry of Defence between 2000 and 2024. The findings reveal significant differences in threat perception and institutional trust between ethnic groups. Ethnic Estonians demonstrate higher levels of the will to defend and trust in national defense institutions compared to non-Estonians. They also show greater readiness to participate in national defense and to remain in Estonia during a crisis. The study highlights that major crises, such as the war in Ukraine, can increase non-Estonians' threat perception and to will to defenc, although these levels remain lower than those of ethnic Estonians. Furthermore, the research underscores that societal unity is crucial in countering hybrid threats; however, ethnic diversity may undermine this unity, particularly when different ethnic groups interpret threats differently. Ethnic diversity and societal cohesion are closely interlinked, and effective communication, along with strategically tailored narratives for different target groups, is essential for enhancing societal resilience.

Dr Milena Palczewska, War Studies University, Climate change and migration - challenges and threats,

The presentation explores the complex and growing phenomenon of climate-induced migration, a critical global issue with profound humanitarian, social, and geopolitical implications. Climate change acts as a powerful driver of human mobility, compelling millions to leave their homes due to sudden disasters like floods and storms, as well as slow-onset environmental changes such as drought, desertification, and sea-level rise. These environmental stressors exacerbate resource scarcity, undermine livelihoods, and intensify conflicts, thereby increasing displacement both within and across national borders. By 2050, it is estimated that over 200 million people worldwide could be internally displaced due to climate impacts, with regions such as Sub-Saharan Africa, South Asia, and Latin America facing the highest numbers of migrants. For example, rising sea levels threaten low-lying island nations like Kiribati, while drought and desertification drive migration in the Sahel region. Most climate migration currently occurs internally, often towards urban centers, where migrants face challenges including overcrowding, inadequate housing, limited access to services, and discrimination. Vulnerable groups, including women, children, and the elderly, are disproportionately affected during displacement. The presentation will also address the gaps in international legal frameworks, which currently lack clear recognition and protection for climate migrants, especially those crossing borders. This legal ambiguity complicates efforts to manage migration humanely and effectively. Furthermore, the geopolitical tensions arising from climate migration require coordinated global action and long-term strategies that integrate climate adaptation, migration management, and humanitarian assistance. Ultimately, this presentation highlights climate migration as a multidimensional challenge that

demands urgent, inclusive, and sustainable policy responses to mitigate risks and protect affected populations worldwide.

Mr Stefano Alfredo De Rosa, Military Academy (MILAC) at ETH Zurich, International Cooperation Among the Armed Forces – Changes and Stability in Swiss Public Opinion over the Past 30 Years.

The current situation in Europe's security environment increases the importance of international cooperation between armed forces. In various areas (armament acquisition, training, surveillance, etc.), for many countries it no longer seems reasonable to act alone. In terms of national defense, the formerly non-aligned countries Finland and Sweden have recently joined the NATO alliance. This step was supported by a large part of the population of the two countries. However, the increasing internationalization of the armed forces is not equally embraced in all countries. Switzerland, for instance, firmly holds on to its neutrality. This neutrality defines some clear limits when it comes to the internationalization of the Swiss Armed Forces (SAF). Since the end of the Cold War, there have been various debates about what forms of military cooperation are compatible with a neutral position. Such discussions have clearly intensified since Russia's full-scale invasion of Ukraine. What emerges clearly here is that the fundamental commitment to neutrality is not being called into question. The Swiss population remains overwhelmingly convinced of this principle of its security policy. Nevertheless, since the Russian aggression, there has been a growing willingness to support certain forms of international cooperation by the SAF. This presentation shows the recent development of public opinion in Switzerland concerning international military cooperation, e.g., with NATO, European partners or the UN. To better understand the situation today, data from the past 30 years is presented. The question arises as to where developments at international level have led to shifts and where – on the other hand – opinions remain unchanged. Most importantly, the aim is to identify groups within the population whose attitude towards international military cooperation has shifted. How did the perception of this issue change according to political orientation, age, gender, or trust in political institutions? The data is based on a survey about security affairs and the SAF conducted annually in Switzerland.

Mrs Annelies van Vark, Leiden University / Ministry of Defence, the Netherlands, Dr. Jörg Noll, Total defense as answer to hybrid threats? Opportunities and caveats.

Since the start of the Russian war of aggression in Ukraine, preparations for a possible war scenario on NATO territory are back on the agendas of European armed forces. The total defense model, developed in the Nordic countries since WWII, is one of the models considered by various European countries to rebuild their armed forces and to involve the whole-of-society (businesses, civil society and even citizens at the individual level) in defending the country. This paper will compare developments in the Netherlands, a country without a total defense background, with two Nordic countries, Sweden and Finland. Using a civil-military relations theoretical perspective, it will discuss the opportunities and caveats of implementing a total defense model in a country without such a background. Central will be the disconnect between threats and solutions and the impact a total defense model would have on the relations between the political elite, the military and society in the Netherlands.

Professor Ausra Kaminskaite, General Jonas Zemaitis Military academy of Lithuania, The contribution of the National defence system to reinforcing a societal resilience to external threats**.**

The aim of Lithuania's defense policy is to provide a deterrence against an armed attack on Lithuania and, in the case of an armed aggression, to protect Lithuania's independence, sovereignty and territorial integrity. As the fundamental principle of Lithuania's defense is a total defense this aim should be pursued through the joint efforts of the Lithuanian Armed Forces, NATO allies, all state institutions and the Lithuania society (kam.lt, 2025). The war in Ukraine has

highlighted the need for civil society to be as well-prepared and resilient to external threats as there are well trained the armed forces, state institutions and NATO partners. It does not come in one day. During the peace time the society through the systematic training and education has to learn about features of external threats, then to build and to develop resilience skills as well as community empowerment. Bajarūnas, Keršanskas (2023) defines the resilience to external threats as the ability of citizens to withstand any disruption to the state or society without serious consequences, to return to normal life as soon as possible. Knowledge of modern security threats, critical thinking and digital literacy are key to this. Resilience is important both as a deterrent and as a prerequisite for building strong civic will. Ministry of Defense of Lithuania as well as the paramilitary organization the "Riffle union", the department of mobilization took the initiative to lead and contribute for development of societal resilience to external threats. The conference presentation is based on the qualitative analysis of secondary data obtained from open military sources and social media. Data was gathered in 2025. Presentation focuses on the efforts and contributions dynamic as well as on variety of instruments to reinforce a societal resilience.

Ms Lema Saleh, Netherlands Defence Academy, Leadership Culture and Employee Retention: Insights from the Dutch Armed Forces.

In an increasingly fragmented world order, maintaining resilient and effective military organizations is critical. Yet, the Dutch Armed Forces (AF) face a persistent challenge: high irregular turnover and severe understaffing, with approximately 10,000 vacancies out of a total authorized strength of 74,000 personnel. This situation threatens operational readiness and amplifies systemic stress. While leadership has been identified as a key factor influencing retention, the precise relationship between leadership culture and military personnel's decision to stay or leave remains underexplored, apart from quantitative research.This paper presents findings from a qualitative sub study based on focus groups with military personnel across the four operational commands—Army, Navy, Air Force, and Marechaussee. It explores how leadership culture is experienced by service members and how it influences their retention intentions. Preliminary results reveal significant variation between commands, highlighting the role of leadership behaviors, organizational subcultures, and perceptions of social safety. Importantly, these findings suggest that leadership culture operates as both a retention risk and a potential mechanism for sustainable personnel strategies. By offering a cross-comparative, command-specific analysis, this study contributes to a deeper understanding of the retention crisis within the Dutch AF. The focus group method provides in-depth insights into personal experiences and organizational dynamics often overlooked by quantitative approaches. Focus groups are organized with personnel across various functions to ensure broad and comprehensive insights, aiming to generate unique qualitative data. The results are highly relevant not only to military HR policy but also to broader discussions on maintaining organizational resilience in complex and volatile environments across military organizations. Ultimately, the findings underscore the need for adaptive leadership cultures capable of responding to the challenges of a fragmenting world order.

Dr Whitney Renee Grespin, USA, From Soldier to Trainer: The Dynamics of Former Military Personnel as Contractors.

The post-9/11 conflicts in Iraq and Afghanistan significantly transformed not only the conduct of war, but also the composition and roles of those engaged in it. One critical yet underexplored dimension is the transition of former soldiers into private military and security contractors (PMSCs) retained to train and mentor partner nation militaries. This chapter examines the talent pool of ex-service members drawn into private contracting roles, focusing on how their military experiences, identities, and socialization processes influence their work in seeking to shape foreign security forces by elucidating the complex dynamics underlying one of the most pivotal yet understudied cohorts in contemporary conflict: the former soldier turned private trainer. Drawing on extensive qualitative research, including interviews and participant observation, this study highlights how former U.S. military personnel leveraged their combat and operational knowledge to fill critical

gaps in partner military training. It explores the dual identity these individuals navigate – shifting from state uniformed service to private sector contractors – alongside the sociocultural challenges and ethical considerations this shift entails. The chapter interrogates how these individuals have negotiated authority and legitimacy both within host nation military cultures and the broader international security environment. Furthermore, this research engages with the behavioral impact of this workforce on partner force effectiveness, organizational culture, and civil-military relations in conflict-affected regions. It considers how the contractors' previous military ethos, warrior identity, and exposure to combat stress shape their pedagogical approaches, mentoring styles, and adaptation to diverse cultural contexts. By situating these contractors within the evolving war ecosystem, this chapter contributes to sociological and behavioral understandings of modern warfare's privatized dimensions. The author's experience advising U.S. Government and international agencies informs this analysis, bridging scholarly insight and practitioner perspectives on the transformation of warfighter identity and function in privatized training and capacity building roles.

Ms Olga Nozdryn-Płotnicka , War Studies University, European Battle Groups - a future of Europe's Defense.

The European Battle Groups (EUBGs), are part of the European Union's Common Security and Defence Policy (CSDP). They are an important solution for European's defence. Without any doubts of of the advantages is a rapid deployment time of this entity in case of an emergency. Especially in a current unsure military environment, it is crucial to also work solution different than NATO's participation. The main goal of this work is to explain the importance of the European Battle Groups (EUBGs) in the European Security and defense aspect.The main merhod use to achieve this goal is an analysis of text materials.

Dr , Česnuitytė, Vida , General Jonas Zemaitis Military academy of Lithuania, , Lithuania, Paper(Late submission), Svajūnė Ungurytė-Ragauskienė , Factors and Dynamics of Retention of Military Personnel In The Lithuanian Armed Forces.

Geopolitical tensions, particularly Russia's military invasion of Ukraine in 2022, have prompted many European countries to bolster their Armed Forces. This includes increasing military personnel numbers. The idea behind the research is that small countries like Lithuania have limited resources for recruiting new personnel; therefore, it is important to retain existing military personnel. However, the military service struggles to retain personnel due to its greedy nature. In the evolving world order featuring a transition towards individualisation, fragmentation and permanent change, the boundaries between the military and civilians are becoming blurred. In this context, the military profession takes on a new meaning and role in individuals' professional careers. It has become commonplace to leave the Armed Forces at a relatively young age with the intention of moving into a civilian profession. In other words, the military profession is competing with numerous other professions in today's labour market. The research aim is to explore how interrelation between motives to become a military professional predict a long-lasting stay in the armed forces, and what is dynamics of such interrelation. The research is based on the data of continuous quantitative surveys collected in Lithuania between 2020-2024, i.e. before and after military invasion into the Ukraine, and in the context of an increased external military threat to the country. The primary results reveal interrelation between non-material motives to become military professional and stay in the Armed Forces for long-lasting period. While material motives at the start, in the long run shorten stay in the Armed Forces. At the same, it is evident that trends change together with service duration, and over years. The research was performed under project Factors of attracting staff to professional military service in Lithuania: incentives, motives, potential candidates and a value proposition' (grant No.S-REP-25-5), funded from the Research Council of Lithuania.

PhD student, Svajūnė Ungurytė-Ragauskienė , General Jonas Zemaitis Military academy of Lithuania, , Lithuania, Česnuitytė, Recruitment To Professional Military Service In Lithuania: Motivating And Limiting Factors**.**

Following the Russian military invasion of Ukraine in 2022, Lithuania faced an increased external military threat, forcing the recruitment of new military personnel into the Armed Forces. As new recruits tend to be young, it is necessary to look for new motivational factors. The objective of this research is to investigate the compatibility and intersection between the subjective motives and limiting factors for becoming a military professional. Based on motivation theories, the subjective factors that motivate people to choose a career in the military may include a sense of patriotism, self-realisation, the need to belong, identity, etc. In late modernity, which is characterised by individualisation, the latter factors have become extremely important. Conversely, the extent to which individual motives are realised depends on numerous external factors. At the macro level, these include the country's geopolitical and economic situation and unemployment rates. At the meso level, these factors may include family commitments and dependence on particular social groups, e.g. religious groups. At the micro level, they may include individual attitudes towards the military and war and physical status. The research is based on the quantitative data collected in Lithuania, 2025, under the project 'Factors of attracting staff to professional military service in Lithuania: incentives, motives, potential candidates and a value proposition' (grant No.S-REP-25-5), funded from the Research Council of Lithuania.Preliminary research results reveal that young people from smaller settlements, where there are limited attractive job opportunities, often have no choice but to join the military, meaning their dreams about their future profession may be limited by macro-level factors. Meanwhile, young people from big cities and well-off families have more opportunities to choose from a variety of professions. For them, the motivating factors for choosing a career in the military may be patriotism, self-realisation, or even a desire for adventure.

Dr, Teija Sederholm, National Defence University, Finland, Maro Ketola, Silvia Sommarberg, Voluntary National Defence as a Strategic Resource in Finland's Total Defence.

Voluntary national defence plays an important role in Finland's defence, reflecting the emphasis based on individuals as key actors in ensuring security in the Security Strategy for Society. Within this framework, NGO's are central players with a significant role in preparing for disruptions and crises, maintaining specialized expertise, and coordinating volunteers in support of national defence and security. In addition, spontaneous volunteers form a notable and motivated resource during wartime, as we have learned from Ukraine. Currently, Finns are highly interested in voluntary national defence. There is a desire to learn new things and strengthen existing skills. The participation in various national defence-related training programs has increased significantly. Due to the increased number of participants, waiting lists have emerged for the courses, and the number of courses has been increased where possible. A recent report by Ministry of Defence proposes that the effectiveness of voluntary national defence should be strengthened in the coming years. In addition, The Defence Forces and the National Defence Training Association of Finland have investigated and implemented NATO related actions to best serve Finland's total defence. After all, each NATO member state holds national responsibility for robust civil preparedness, as stated in Article 3.In "Comprehensive national defence as part of national resilience" research project we look into the voluntary national defence in Finland. Earlier this year we explored perceptions of the role of NGO's and the use of volunteers as a wartime recourse, based on a limited group of officers and representatives from various security authorities. While volunteers are considered a valuable asset during wartime, our study indicates a lack of understanding and clarity regarding volunteers' roles. They are, however, seen as a potentially useful in tasks such as host nation support, logistics and communication.

Working Group 8: Defence Management and Economics

COL (ret.) Dr. , Çlirim Toci, Baltic Defence College, Tartu Estonia, , Strategic Preparedness at the Baltic Defence College: Educating Future Military Leaders in Defence Management

In today's increasingly complex and unpredictable global security environment, strategic preparedness is a fundamental requirement for effective military leadership. The Baltic Defence College (BALTDEFCOL) plays a pivotal role in Professional Military Education (PME), equipping future military leaders with the skills and knowledge needed to address evolving defence challenges. As threats diversify—from hybrid warfare and cyber operations to geopolitical instability and resource competition—the integration of Defence Management into PME has become essential. This paper examines how BALTDEFCOL embeds Defence Management tools and practices into its curriculum to enhance strategic preparedness. It argues that such education is vital for developing leaders who are not only tactically proficient but also strategically agile and capable of managing limited resources. The analysis focuses on the unique strategic, economic, and security challenges faced by the Baltic states, particularly in light of the growing threat posed by Russia. It also highlights how BALTDEFCOL's approach fosters resilience, adaptability, and forward-thinking leadership. The findings underscore the importance of aligning military education with contemporary security realities and demonstrate how strategic preparedness can be cultivated through targeted, future-oriented PME.

Key Words

Strategic preparedness, Defence Management, PME, BALTDEFCOL, military leadership, security challenges, resilience.

Dr Ilze Vilka, Populist Encounters Research Group, Social Sciences Research Centre, Riga Stradins University, Populism, Economic Insecurity, and the Will to Resist: Strategic Fragility in the Baltic States.

In the context of a fragmenting global order, the resilience of small democracies increasingly depends not only on material capabilities but on the population's will to resist. This paper examines how populist narratives and rising economic insecurity undermine the societal cohesion, trust, and legitimacy required to sustain national defence efforts with a focus on geopolitically exposed Baltic states. Using a comparative approach, the study integrates defence economics indicators (GDP growth, tax revenue, inequality, and trust in institutions) with political data on populist activity and foreign influence. It argues that populism, often fueled by socioeconomic grievances and amplified by Russian disinformation, erodes the core conditions that enable societies to mobilize and maintain resistance: shared identity, institutional trust, and confidence in the future. Latvia, with the highest inequality and lowest institutional trust, emerges as the most vulnerable. Lithuania faces growing populist pressure under inflationary stress. Estonia demonstrates relative resilience, though not without risk among its Russian-speaking minority. This paper complements Brigadier General Andreas Stupka's ISMS 2024 call for strengthening cognitive resistance by underscoring the economic foundations required to support it. While cognitive warfare targets psychological readiness, this study argues that such readiness cannot emerge without fiscal legitimacy, inclusive governance, and institutional trust. The paper contributes to the growing discourse on the "will to resist" by proposing a framework that links defence economics to societal resilience, offering policy recommendations for strengthening societal defence through economic coherence, inclusive communication, and early-warning indicators of fragmentation. As hybrid threats blur the line between morale and material, understanding the economic conditions that shape the will to resist becomes essential for both strategic planning and democratic survival.

Professor Naceur Essaddam, Royal Military College of Canada, Optimizing Defence Resources: The Importance of Currency Hedging and Its Associated Challenges.

In an increasingly globalized economy, the Department of National Defense (DND) faces significant financial risks due to currency fluctuations that can impact defense procurement, operational budgets, and international partnerships. To maintain budget stability and ensure efficient resource allocation, it is essential for the DND to hedge against currency exposure. This paper highlights the critical role of currency hedging strategies in mitigating risks related to volatile exchange rates. By implementing effective hedging techniques, the DND can protect its financial interests and strengthen strategic partnerships with international defense suppliers. We also examine traditional methods such as forward contracts, options, and futures. Additionally, the paper discusses the practical challenges of implementing these techniques within the DND, including regulatory constraints, resource allocation, and the need for specialized financial expertise.

Professor, Ugurhan Berkok, Royal Military College of Canada, Report on the NATO Defence Economics Working Group, A report on the June conference of the NATO Defence Economics Working group

Dr Dumitrache Vlad Ionut, Regional Department of Defence Resources Management Studies, National Defence University Carol I, Romania, Maria Constantinescu, Brindusa Popa, ReArm Europe and its opportunities for the Eastern European Defence Industry.

After the collapse of the communist regime, for Eastern European countries like Romania the path of development for the national defense industry has been a complicated one. After the defense industry was moved from the Ministry of Defence to the Ministry of Economy, a lot of companies that were stated owned before 1989 went bankrupt while others barely survive. After joining NATO, Romania's defence industry improved marginally but it was only after the Russian invasion of Ukraine that investments and upgrades started to emerge in this market. Now with Europe's ambitious ReArm program, there is a new chance for the development of the national defense industry. It is the aim of this paper to study what are the opportunities for development, current shortfalls and gaps and the ways ahead for this key element in Romania's integrated national defence system.

Working Group 9: Military Education

Dr Deborah Mayersen, Australian Defence Force Academy, The Case for Incorporating Atrocity Prevention Education into Military Education: In Australia and Internationally.

> Almost all major Australian military deployments in the past thirty years have been to places at very high risk of genocide and mass atrocities. In 1999, the Australian-led INTERFET (International Force East Timor) was hastily deployed to respond to the crisis in East Timor – a situation many feared was on the cusp of genocide. From 2003-2017, Australia led the Regional Assistance Mission to Solomon Islands (RAMSI), in response to a deteriorating cycle of violence and growing risk of atrocities there. Major deployments to Iraq and Afghanistan, as part of coalition forces, also saw Australian troops in places deemed at extremely high risk of atrocity crimes. Yet Australian military personnel, like those in most Western countries, do not receive specific training in atrocity prevention prior to deployment to such high risk zones. Even UN peacekeepers, routinely deployed to places where mass atrocities are considered imminent or even underway, are not given specific training focused on how to recognise and respond to these risks of atrocity crimes. This paper considers how such training could aid military personnel on deployment in at-risk countries. Equipping soldiers with essential knowledge and skills to recognise warning signs of imminent violence, to explore approaches for managing such risk, and to examine pathways to fostering longer-term stability and conflict de-escalation can contribute to more effective risk management, ultimately protecting civilians from harm. This paper will examine what such training might look like and how it could be delivered to those who need it most. It concludes by reflecting on the value of incorporating atrocity prevention training for all military personnel likely to deploy to at-risk countries.

Dr, Anne Marie Hagen, Norwegian Defence University College, Kjetil Enstad, Navigating complexity: Developing critical thinking skills through humanities electives in PME.

> The fragmented world order that has emerged in recent years is characterized by the use of disruption and by entire societies becoming targets in the struggle for influence. Influence operations and disinformation campaigns are ubiquitous and sophisticated. This makes it paramount that military education facilitates attainment of the professional knowledge, skills and dispositions required to safeguard democratic societies facing these challenges. Critical thinking is typically seen as a key skill for navigating complex and rapidly changing conditions, and it is one of the few core skills which the discourse on military education agrees are crucial for military professionals (Enstad & Hagen, 2025). This presentation introduces the findings of a recent Scholarship of Teaching and Learning (SoTL) project carried out in a cultural studies class and a communications class at the Norwegian Military Academy. Drawing on this study, the presentation discusses how critical thinking skills can be developed in twenty-first-century military leaders through humanities subjects and approaches and promotes humanities approaches as particularly relevant for navigating today's complex security environments. It situates the findings in the literature on critical thinking in PME and suggests that critical spirit is a key requisite for officers in these contexts. This presentation is formatted as a poster presentation, which would be our first choice for ISMS 2025. However, if the organisers prefer a standard paper presentation, we would be happy to accommodate this.
>
> Reference:
> Enstad, K., & Hagen, A. M. (2025). No common understanding? A scoping review of professional military education in the twenty-first century. Scandinavian Journal of Educational Research, 1–21. https://doi.org/10.1080/00313831.2025.2459408

Mr., David Francis Manning, National Defense University IMET Consultant, IMET in a Volatile and a Multipolar World in Crisis

American security and defense policy through foreign military training and cooperation with likeminded democracies are force multipliers but only to a degree in a multipolar, three power dyad, geopolitical world. This paper draws upon real-world experiences of foreign military officers and diplomates chronicled (First Person) in my global arms series which examines the strategic and tactical benefits derived from the United States government's International Military Education and Training (IMET) programs with long-lasting foreign military relationships around the world. Since the Second World War, the United States government has had, as a deliberate component of its national security policy, the cultivation and maintenance of direct military ties with foreign military establishments. These programs are notably conducted through military and diplomatic exchanges in defense education and training protocols, class seminars, and field applications. Since 1894 more than 15,000 Foreign Defense and Diplomat personnel have graduated from a US Defense Institution. International Defense Education and Training builds lasting friendships with interoperability skills and influence. These links allow access to territory, infrastructure, and information sharing as Windows to the World – in a profession of Arms spread in vast networks of friendships. We learn new defense capabilities universally rooted in culture and techniques in which we rely for successful interoperability. Our defense training institutions define Common Bonds that apply to defense power across the full geographical spectrum. Defense relationships are built on trust and understanding in the things we have in common. We cultivate these alliances through tolerance and mutual understanding, in their many shades of grey, despite all the divisive politics. Because we can surge lots of things but the one thing we cannot surge, is trust. If we learn more about where and how military leaders are educated, we are then better placed to shape transnational education to address new and changing threats based on shared evidence. What better platform is there for defense leaders, journeymen, and diplomates, of all stripes to congregate, educate and collaborate on defense tactics, stratagems, and command-and-control systems to better interoperate as a team. We learn who we are from a shared frame of reference in diversity and civil-military societies. We gather a sense of history and geography to better understand because nations' views of history differ by its national roots. These historical perspectives reflect our foreign policies in the geopolitics and social & economic conditions of the time. We learn what a liberal (or illiberal) democratic society looks like from the foreign students' own geopolitical and social realities. These things are not linear either but are more about learning who we are as a civilization; we learn what to think and how others think about us, culturally, defensively, geopolitically, and strategically. These officers and diplomatic alumni who advance to flag and senior leadership often exercise their long held political and strategic ideolog in governing and military leadership. President El Sisi of Egypt, a US Army War College graduate, rules his nation with a dictating iron hand of rule. Elsie's governing style ideology was outlined in his USAWC theses in 2006. Security has everything to do with economics and economics has everything to do with security. Geography and History have everything to do with both. These are political and leadership frames of reference in the minds of foreign officer and diplomate graduates, but dependable alliances are paramount to security cooperation. Albeit for keeping dependable allies on board through nurtured flexible relationships through security challenges while balancing values and interest of all nations.

Dave Manning is an Independent Writer on International Military Education & Training, International Defense Relations, and Alliance Partnerships. He chronicled more than ninety-six international military officer and diplomat alumni in four volumes in his Global Arms Series across several US War & Staff College Institutions. He enlisted in the United States Air Force in 1972 and served as a services-logistician throughout Europe with USAFE, AAFES, NATO, the Balkans, and European Defense Commands from 1974 to 1998.

Dr Whitney Renee Grespin, USA, Partnerships and PME: How Professional Military Education Opportunities Impact Security Relationships.

Kenya's strategic position in East Africa has led to significant shifts in its security partnerships and assistance over the past decade. From the U.S. designation of Kenya as a Major Non-NATO Ally to the UK's commitment of £10 million annually for counter-terrorism programs, these developments underscore the changing landscape of security cooperation. Likewise, the State Department characterizes Ghana as a key partner in West Africa, particularly in maintaining democracy, countering extremism, and bolstering regional security. It also features within the Coastal West Africa portfolio of the Global Fragility Act.In collaboration with faculty from PME institutions of Ghana and Kenya, this chapter will focus on how PME is approached by African institutions, and how these partner nations view the purpose of PME and its value to their forces. Using Ghana and Kenya as case studies will also be valuable given their respective Kofi Annan International Peacekeeping Training Center (KAIPTC) and International Peace Support Training Center (IPSTC) and the unique resourcing and outputs from those operationally-focused institutions. Indeed, Kenya's involvement in international (not only regional) missions, such as the deployment of police officers to combat gang violence in Haiti, highlights its expanding role on the global stage. This work will further develop study on the role of PME interactions in professional development and personnel management, as well as the importance of collaboration and networking across PME institutions to encourage doctrinal harmonization and build interoperability.

Dr Khalid Mahmood Shafi, ISSRA, NDU Pakistan, Embedding Climate Literacy in Professional Military Education: Strengthening Strategic Leadership for Environmental Security.

Climate change increasingly shapes the operational landscape of national security, disaster response, and strategic military planning. As such, climate literacy is emerging as a critical competency within professional military education (PME). This paper examines how environmental awareness can be systematically integrated into senior military leadership training. Drawing on practitioner research, communities of practice, and international learning networks, the study analyzes gaps in current military curricula and proposes evidence-based reforms informed by global best practices. The findings underscore the imperative for climate-informed decision-making, operational adaptability, and institutional resilience. The proposed framework offers a structured approach to embedding climate literacy across all levels of military education, strengthening strategic preparedness and cognitive security in a rapidly evolving threat environment.

Keywords: Climate Literacy, Professional Military Education, Environmental Security, Military Leadership, Institutional Resilience

Professor Ilona Urych, War Studies University, Military Education in Secondary Schools in Poland. Empirical results.

The aim of the paper is to present military education in secondary schools in Poland and the possibilities for their use in processes strengthening national security. The basis for reaching the conclusions presented here were the results of empirical research conducted among secondary school students enrolled in military classes in Poland. The type of statistical analysis used, segmentation, allowed subgroups of respondents to be identified with their percentage share in the total population and the characteristics that define them. Analysis of the research results make it possible to distinguish categories of the defense potential of students of military classes such as their mobilization, social and individual potential. The content of the presenattion also indicates the possibilities and needs for the development of the potential of students of military classes.

Dr, Rasa Smaliukiene, General Jonas Žemaitis Military Academy of Lithuania, Crisis Response and Disaster Management Curriculum in Military Education.

In recent years, armed forces have become increasingly involved in domestic disaster response, supporting civil authorities during emergencies. This marks a shift from earlier practice, where military training in disaster relief primarily focused on humanitarian assistance and disaster response operations conducted abroad. This shift calls for a re-evaluation of the crisis response and disaster management curriculum within military higher education. However, adapting the curriculum is not straightforward. The existing body of knowledge on domestic disaster management is largely tailored to first responders, whereas the military typically serves as a secondary or supporting actor, engaged when the scale of a crisis exceeds civilian capacity. Drawing on several years of experience teaching crisis response and disaster management, I have identified effective curriculum design practices. These include the use of complementary instructional models that enable a smooth progression from strategic foresight to real-time command decision-making, and ultimately to considerations of socio-political legitimacy—thus capturing the full complexity of disaster response. The cascading aproach from strategic conceptual model through real time decision making is used not only as course curriculum framework, but also for each lesson. Especially using case studies. This cascading approach, moving from conceptual strategic models through operational decision-making to contextual understanding, serves not only as the overarching structure of the course but also guides the design of individual lessons especially in master level course. It is especially effective when applied through case-based learning, allowing students to engage with realistic scenarios and test their understanding across all levels of response.

Dr Danic PARENTEAU, Collège militaire royal de Saint-Jean, None, Towards the development of a unified university curriculum for officer education?

The officer corps stands apart from other professions, like lawyers or medical doctors, in that it lacks a dedicated academic discipline through which its future members are formally educated. In recent years—particularly across Europe—we can see efforts being made towards this kind of development. While these efforts remain uneven and limited in scope, they are nonetheless significant. Initiatives like EMILYO and the development of common modules, initially designed to support cadet exchanges, also serve to gradually establish the foundations of a shared educational framework. International forums such as iMAF, ISOMA, and the annual ISMS conference further contribute to this emerging trend.This paper presents an essay-style reflection on the aim of creating a unified academic curriculum for officer education within military academies. It focuses on two key challenges. First, such a curriculum must avoid replicating the model typically used in professional training development, which is centered on competency checklists. Education is not merely training; it should foster holistic intellectual growth rather than the “accumulation” of discrete skills and competencies. Second, the choice of a central university discipline around which to structure this curriculum requires careful consideration. It must reflect the multifaceted nature of the officer’s role, while preserving its distinct professional identity. Ultimately, this reflection seeks to explore what defines the essence of the officer profession and how that essence should guide the education of those who embrace it.

Ms, Tali Neumann, Wikistrat, Developing Cognitive Agility: Preparing Officers for Uncertainty.

Military officers today navigate environments where the unexpected has become the norm. Hybrid threats emerge overnight, technologies shift the tactical landscape within months, and adversaries deliberately exploit cognitive blind spots. Officers must navigate unprecedented levels of uncertainty and ambiguity, making rapid strategic adaptation essential. In this reality, the key capability officers need is cognitive agility: the ability to rapidly adjust mental frameworks when situations defy established patterns. This involves rapid sense-making amid fragmented information, adaptive decision-making as circumstances evolve, psychological resilience under

ambiguity, and maintaining effectiveness when standard procedures no longer apply. These skills prove decisive when officers encounter the unfamiliar, whether facing novel threats or managing cascading crises. Drawing from Wikistrat's extensive experience in strategic simulation and crisis exercises, this talk presents practical methods for developing cognitive agility in military education: Attendees will learn to design exercises featuring fragmented intelligence and multiple communication channels, teaching students to rapidly integrate, question, and adapt to evolving information as they manage internal team discussions, covert diplomatic exchanges, and public announcements simultaneously. These will be exemplified by case studies from simulations based on developing events, such as the Russia-Ukraine War. Attendees will also discover structured cognitive reframing techniques, learning methods to train cadets in the deliberate reframing of complex situations. Exercises such as structured “What if?” questioning, alternative hypothesis generation, and assumption reversals equip cadets to uncover hidden threats or unexpected opportunities during fast-evolving crises. These will be demonstrated through Wikistrat’s historical simulations, in which cadets assume the roles of key decision-makers at pivotal points in history. Participants will learn about high-tempo decision-making drills, known as "Chaos Drills," which create cognitive overload conditions where officers must maintain decision quality despite mounting uncertainty, teaching real-time prioritization, decision clarity, and cognitive resilience. Wikistrat’s Crisis Chaos Simulations, focusing on cyberattacks, will illustrate this methodology.

Professor/Lt.Col., Anders McDonald Sookermany, Norwegian Defence University College, Thomas Slensvik, Designing for Complexity: Integrating Systems Oriented Design and AI in Professional Military Education.

Professional military education (PME) is increasingly called upon to prepare officers for a world marked by complexity, fragmentation, and hybrid threats (Enstad & Hagen, 2025), where learning must be situated, adaptive, and embedded in realistic communities of practice (Sookermany, 2011). In such environments, knowledge is often contested, actors unpredictable, and traditional categories of war and peace blurred. This paper explores how Systems Oriented Design (SOD) (Sevaldson, 2022), in combination with artificial intelligence (AI), can serve as both a pedagogical approach and a learning architecture for cultivating reflexivity, systems literacy, and ethical agency in future military leaders.The empirical basis of the study is an upcoming experiment embedded in the Joint Operational Planning course at the Norwegian Defence University College (NDUC), conducted in collaboration with the Swedish Defence University (SDU). As part of a NATO HQ simulation, three J5 planning groups are formed: one rooted in doctrinal planning, another combining doctrine and AI, and a third applying SOD with AI support. This paper focuses on the third group, composed of assigned students with little to no prior training in SOD methodology tasked with engaging operational planning through a systems-oriented design lens. The group will operate as an autonomous cell, exploring alternative ways to make sense of the operational environment and structure their planning approach.Building on previous SOD-integrated teaching practices (Slensvik & Sookermany, 2024), we anticipate that the design process will shift the educational dynamic from procedural training toward exploratory learning, fostering the kind of reflection-in-action that Schön (1983) described as central to professional practice. We aim to investigate how students engage with the planning task differently when exposed to open-ended problem-framing, stakeholder mapping, and iterative sensemaking—key SOD tools that contrast with more prescriptive planning methodologies. We also consider how AI tools may shape cognitive effort and group interaction: Do they support or hinder the development of human-centered judgment, adaptability, and responsibility? This paper contributes to ongoing discussions about how PME can move beyond the transmission of doctrine to support deeper professional formation. We argue that addressing military complexity requires not just new content but new pedagogical forms—ones that might integrate design thinking, ethical reflection, and collaborative inquiry. Ultimately, the experiment offers insights into how military education can help officers prepare not only to plan under complexity, but to think, act, and learn within it.

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Dr, Robert Lummack, CWO Robert Osside Profession of Arms Institute, Learning for Turbulence.

Rosenau (1990), theorized the increasing interconnections of early globalization using the concept of 'turbulence'. Several decades later, human societies continue to complexify, deriving in no small part from rapid technological advance. Given the dual-use nature of technology, benefits to human progress cannot be uncoupled from military developments. The Russian invasions of Ukraine (2014, 2022) have most dramatically signalled a shift away from predictable politics. In 2014, the invasion demonstrated that the use of military force to achieve political objectives was not a relic of the past. Further, it made visible what was previously kept in the shadows - the conduct of warfare through non-kinetic, and holistic means – 'hybrid warfare' (Paeck & Solis, 2016). The 2022 expansion of the war confirmed that hard military power is irreplaceable when required and that warfare is constantly evolving. Yet, events in Ukraine may only represent opening acts of a new 'turbulence' – an era of renewed geopolitical competition and dangerous arms race escalation. The mass uptake of Artificial Intelligence (AI) and coming of age of space, cyber and quantum technologies, imply that not only societies, but also military capability and geopolitical strategy may profoundly change in short order. This shift implies a massive burden for the functional imperative of Western militaries (Huntington, 1957), who defend nation-states which are themselves increasingly complex (Vertovec, 2007). Using Rosenau's (1990) concepts of 'habits and learning', this paper argues that new learning is required to prepare for worst-case scenarios. This paper examines how warfare and geopolitical strategy are being re-imagined in potentially overlooked post-2022 sources: within emerging private sector originators of technologies, and publications of non-NATO member states, contributing to discussions of military preparedness within Western militaries.

Dr, Jill Scott, Royal Military College of Canada, Dr. Cecile Malardier-Jugroot, The Role of Research in Military Academies in a Fragmenting World Order: How Research Contributes to a Sovereign Defense and Security Innovation Strategy.

The project aims to evaluate the role research in military academies in light of growing concerns about the sovereignty of the Canadian defense and security enterprise. Specifically, in light of the increasingly complicated geopolitical space and in particular the threats to Canada's sovereignty, this study will consider how defense and security research conducted at the Royal Military College of Canada (RMC) may have taken on a heightened importance and a sense of urgency and relevance. We plan to consider the history and evolution of research at RMC, the contributions to both discovery-based research and directed research for military applications, and to ask how such capacities in a national institution under Canadian authority align with increasing concerns about the sovereignty of our defense and security enterprise. There is a growing urgency to innovate in defense and security, whether in the areas of emerging technologies, tactical

developments for the theatre of war, or policy and strategy. Ensuring that this research and innovation is conducted in a secure facility to meet the specific needs of the Canadian Armed Forces and the Department of National Defense has also become a matter of national sovereignty. The unique focus of the research developed in a military institution is adapted to trans- and multidisciplinary design of the research projects for a relevant and agile impact in a rapidly evolving environment. We plan to conduct an analysis of the present state of affairs and to engage with researchers and military leaders to evaluate the above questions and consider recommendations for the future.

Lieutenant colonel, Ørjan Rogne Rise, Norwegian Defence University College, Hanna Forsberg (SDUC), Evaluating AI as a Pedagogical Assistant in Military Staff Exercises: A Kirkpatrick-Based Approach to ICT Integration in PME.

This study investigates the pedagogical implications of integrating generative artificial intelligence (AI) tools into professional military education (PME), focusing on their role as educational assistants during operational staff exercises. Conducted within the framework of the Norwegian-Swedish praxis arena Comprehensive Shield 2025, the research is part of a broader experimental design involving multiple study areas. This abstract presents the scope and methodology of the pedagogical study on the use of information communication technology. The study applies Kirkpatrick's four-level model of training evaluation—reaction, learning, behavior, and results—to assess how military students interact with and benefit from AI tools during complex planning tasks. Data collection includes post-exercise questionnaires, structured observations, and semi-structured interviews, enabling both quantitative and qualitative analysis. The research aims to generate actionable insights into how AI can enhance learning outcomes, support knowledge development, and foster critical thinking in PME contexts. By triangulating student perceptions, observed behaviors, and instructional feedback, the study could on completion make empirical-informed recommendations for practical-pedagogical integration, as well as ethical considerations, of AI into PME curricula and operational training frameworks. This work contributes to the evolving discourse on digital transformation in defense education, offering a structured analysis for evaluating emerging technologies in complex, high-stakes learning environments.

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MS copilot supported the development of this abstract.

Working Group 10: Strategy

Professor, Dr., Sandro Teixeira Moita, Brazilian Army Command and General Staff College, Inescapable and inevitable: Strategy in the Age of AI.

> The age of AI brings with it a new trend in military postmodernism, with the adoption of automation technologies and artificial intelligence systems that, at first glance, seem to offer solutions to the growing complexity of managing and directing military operations. The challenge, however, is to resist the temptation to speed up a cycle of interactions by automating even the strategic decision. And yet, strategy is something that involves conceiving courses of action, something that involves reflection under the pressure of various factors such as emotions, political considerations, and others. It cannot be denied that the conduct of military operations, one side of the "strategic bridge", will be affected by the introduction of AI systems, but this will only have a real impact with the establishment of a political-strategic guidance model, recognizing Clausewitz's warning about the difficulties of practicing strategy, something that AI systems currently do not have the capacity to solve. Thus, the purpose of this presentation is to understand the challenge posed by the adoption of AI in the field of strategy, especially in terms of considering a reconciliation of theory and practice to bring about a more efficient use of technology in war, perhaps in which algorithms dream of the fog of war and trinities in Clausewitzian landscapes.

Dr, Jānis Bērziņš, National Defence Academy of Latvia, Lukas Milevski, Developing a Teaching Reference on strategy for small states

> A roundtable discussion which considers available resources and the content and format of a reference text that would be useful for educating entry and mid-career officers in institutions for post-secondary PME at bachelors and masters level.

Dr, Iulia Oana Secrieru, Royal Military College of Canada, Ugurhan Berkok, U.S.-Taiwan alliance against cognitive warfare and signal-jamming deterrence.

> President Obama’s Pivot to Asia through bilateral alliances and a deterrent force developed during 2010-2012 but it can be politically pinpointed towards the November 2011 East Asia Summit in Jakarta. Subsequently, it reached its full-fledged military turning point with the assignment of a second aircraft carrier group to South China Sea in 2015 from the Middle East and the start of the freedom of navigation operations in South China Sea. Throughout this period, US preserved its long-time policy of strategic ambiguity on whether it would go to war to defend Taiwan’s independence against China. We thus concentrate on this alliance. We model this phenomenon through a two-stage asymmetric information game where the type of U.S. Strong or Weak, is not precisely known to the potential aggressor but its action, stand Resolute or act Hesitant, is observable to the potential aggressor. We build a Perfect Bayesian (Pooling) Equilibrium that exhibits signal-jamming as the Weak defender can also deter. We interpret the unknown type of U.S. by reputation based on its credibility in other global theaters, namely by its behaviour towards Russian bellicosity in Ukraine. A further layer in the paper incorporates the new concept of reassurance that recently emerged in the political science literature into our framework. Intuitively, reassurance dampens the spread of payoffs to the aggressor thereby weakening the belligerent’s incentive to invade. Whereas deterrence specifies a punitive response to belligerent action by the aggressor, reassurance rewards the avoidance of belligerent action. This reassurance action is left exogenous.

Dr, Samuel Zilincik, Royal Danish Defence College, James Horncastle, Revisiting Multi-Domain Operations: A Historical Reflection on the Respective Roles of Combination and Prioritisation in the Conduct of War.

NATO's new operational concept Multi-Domain Operations (MDO) assumes combining efforts across various military and non-military instruments of power is essential and beneficial for winning future wars. In this article, we offer a historical perspective to enunciate the MDO's underlying philosophy. Specifically, we argue that combining instruments/services is not inherently necessary nor beneficial, and that prioritisation of one instrument/service can prove contextually meaningful. To substantiate our claim, we use three illustrative case studies: the Franco-Prussian War, The Second World War, and the ongoing Russo-Ukrainian war. Our argument does not imply that prioritization is always preferable, nor that it will prove decisive in future warfare. However, it suggests that NATO should treat prioritisation seriously, and avoid assuming that by combining instruments/services it will automatically prevail over its adversaries.

Dr Whitney Renee Grespin, USA, Dr. Israel Nyabera (NDU-Kenya); COL Michael Naah (Ghana Armed Forces), Partnerships and PME: How Professional Military Education Opportunities Impact Security Relationships.

Kenya's strategic position in East Africa has led to significant shifts in its security partnerships and assistance over the past decade. From the U.S. designation of Kenya as a Major Non-NATO Ally to the UK's commitment of £10 million annually for counter-terrorism programs, these developments underscore the changing landscape of security cooperation. Likewise, the State Department characterizes Ghana as a key partner in West Africa, particularly in maintaining democracy, countering extremism, and bolstering regional security. It also features within the Coastal West Africa portfolio of the Global Fragility Act. In collaboration with faculty from PME institutions of Ghana and Kenya, this chapter will focus on how PME is approached by African institutions, and how these partner nations view the purpose of PME and its value to their forces. Using Ghana and Kenya as case studies will also be valuable given their respective Kofi Annan International Peacekeeping Training Center (KAIPTC) and International Peace Support Training Center (IPSTC) and the unique resourcing and outputs from those operationally-focused institutions. Indeed, Kenya's involvement in international (not only regional) missions, such as the deployment of police officers to combat gang violence in Haiti, highlights its expanding role on the global stage.This work will further develop study on the role of PME interactions in professional development and personnel management, as well as the importance of collaboration and networking across PME institutions to encourage doctrinal harmonization and build interoperability.