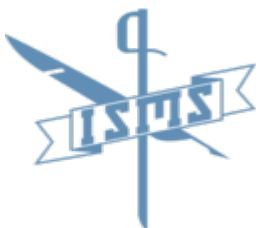


# Scaling Up, Learning Lessons, Ensuring Quality

## International Society of Military Science Annual Conference 2024 Book of Abstracts

Edited By

Kjell Engelbrekt, Marika Metsola Renström, Victoria Zhang, and David Last



# International Society of Military Sciences

## Annual Conference 2024

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Kjell Engelbrekt, Marika Metsola Renström, Victoria Zhang, and David  
Last

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## Foreword

Against the backdrop of ongoing wars and political conflicts in Europe and the Middle East, alongside increasing tension between major powers in the India-Pacific region, the armed forces in many countries are rebuilding their military capabilities and expanding their educational programs geared toward officers and other categories of military and auxiliary personnel. While seasoned political decision-makers and defence planners understand it takes several years to create competent military units and many rounds of exercises until they can operate effectively together, the urgency sensed in societies typically translates into substantially larger defence budgets that, in turn, allow for a relatively rapid scaling up of forces. Meanwhile, ongoing military conflicts require defence planners and educators to constantly re-evaluate existing doctrine and ways of warfare.

These developments evoke questions regarding the balance between an emphasis on size or quality and between what to absorb of new practices and technologies employed in warfare and what to pay less attention to. How do we bolster the size of defence forces as quickly as possible while not compromising the quality of the forces that eventually are assembled? How do we process the preliminary observations from wars in Ukraine, the Gaza Strip and elsewhere so that we neither under- nor over-estimate their repercussions on the type of war we may face in the not-so-distant future?

The challenges associated with a rapid increase in defence budgets and the expansion of military organizations potentially affect all levels of military education, force generation, use of force and long-term defence planning, whether in a national setting or as part of an alliance such as NATO. But budget increases and force expansion also affect defence management, command and control, integrating new military technology, and fine-tuning warfighting concepts against national and international law.

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# Introduction

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The International Society of Military Sciences (ISMS) was established in Amsterdam in 2008 by a group of defence universities in small democratic countries. The Austrian National Defence Academy, the Royal Military College of Canada, the Royal Danish Defence College, the Finnish National Defence University, the Netherlands Defence Academy, the Norwegian Defence University College, the Swedish Defence University, and the Baltic Defence College needed to collaborate to meet their research and educational objectives for peace and security and accredited higher education under the Bologna process. The War Studies University of Poland and the Military University Institute of Portugal have since joined the Council of the Society. The Society seeks to create, develop, exchange, and disseminate research and knowledge about war, conflict management and peace support efforts. It hosts an annual conference and one or more workshops per year.

Despite the dangers of the world having worsened since 2008, the working groups established at the initial meeting remain relevant. The working groups act as a framework for sharing research and developing publications to support teachings and operations.

The supported communications and publications are:

- War Studies
- Military History
- Military Technology
- Leadership, Command, Control, and Basic Competencies
- Military Law & Ethics
- Security and Defence Policy
- Armed Forces and Society
- Defence Economics and Management
- Military Education, and
- Strategy

These subjects are intimately connected, and the working groups avoid creating silos. Individual military and civilian researchers cross over between the working groups participating in conferences such as joint panels and roundtables. The conferences and workshops are hot-houses for initiating new collaborations. Annual conferences are not limited to the members of the founding institutions as displayed by the seventeenth annual conference at the Swedish Defence University in September 2024, where soldiers and scholars from over forty countries and five continents participated.

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The Book of Abstracts will be the first output of the annual conference. Previous collections of abstracts can be found on the ISMS website ([www.isofms.org](http://www.isofms.org) under past conferences). Many authors will submit manuscripts developed after the conference to the ISMS ecosystem of peer reviewed military journals, which publish free online and occasionally in multiple languages. The editors of these journals meet periodically under the umbrella of ISMS to enhance the scholarship of their publications.

#### JOURNALS:

- Defence Science Review (Military University of Technology in Warsaw, Poland)
- Security and Defence Quarterly (War Studies University of Poland)
- The Canadian Military Journal (Canadian Defence Academy)
- The Journal of Military Studies (Finnish Defence University)
- The Journal on Baltic Security (Baltic Defence College)
- The Portuguese Journal of Military Sciences (Military University Institute) □ The Scandinavian Journal of Military Studies (Norway and Denmark)

The ISMS works on cooperating in a variety of ways to develop the body of knowledge on which security and defence education for small democratic countries rests.

The Springer International Handbook of Military Sciences, led by Anders Sookermy of the Norwegian Defence University College, is organized into sections reflecting the work of the Society. Subsidized by the Norwegian Defence University College, the first thousand pages are now available online for free. It is a continuously growing electronic reference work to serve the military profession.

The ISMS Council appoints working group chairs. Presidents responsible for the annual conference may appoint local co-chairs to facilitate the work of the conference. The chairs and co-chairs do important work beyond the life of the conference. Many of the Society's past conferences have produced volumes of proceedings reflecting the concerns of the day. Starting in 2022, the War Studies Working Group, under the leadership of Marzena Żakowska of the War Studies University, produced the book *Modern War and Grey Zones: Design for Small Countries*. This important volume will be released by Routledge in 2025, reflecting work by an international group of scholars exploring the forms of warfare now confronting small countries worldwide.

Under the leadership of Laurenz Fürst of the Austrian National Defence Academy, and with the support of the Working Groups on Security and Defence Policy, Defence Economics and Management, Strategy, and others, a volume is being prepared on *Building Defence Capabilities*. Other volumes in preparation include *Policing the Grey Zone*, under the leadership of Marina Caparini and in cooperation with the European Research Group on Military and Society. Canada's Osside Institute is leading work for a volume on *Command Senior Enlisted Leadership*.

The 118 abstracts assembled here hold the potential for many publications and ideas for even more projects that can make important contributions to military science, national security, and professional development. Below is a small introduction for each of the working groups and some interesting abstracts from each. Although they are grouped by working group, readers will find many cross-cutting themes. Ukraine's experiences and lessons from its ongoing war for survival feature prominently. Researchers from NATO's newest members—Finland and Sweden—are well represented.



## Working Group 1: War Studies

Lars Henåker, and reviewing assistance by Marco Marsili, Working Group 1: War Studies is a very active research community. This working group discusses lessons from Ukraine, Russia's ongoing war against the West below the threshold of violence, Israel's war against Iran and its proxies, and new ways of thinking about operations which also appear as major themes in other working groups. First-hand experience and field research on the front lines by researchers from Sweden make these papers particularly rich. Papers on the impact of drones, combat cohesion, tactical adaptation, and unit resilience in defence will interest serving soldiers resulting in publications in professional journals. An insider's look at Russian irregular forces (Arasli Jahangir) and an understanding of the Wagner Group's role in authoritarian conflict management in Africa (Christopher Spearin) will interest more general audiences.

## Working Group 2: Military History

Led by Art Johanson, with on-site assistance from Tae Hon Kim, the Military History Working Group addressed topics ranging from the American Civil War to the War in Ukraine. For those interested in military capability generation, Michał Mydłowski discusses the logical issues with the rapid expansion of the Union forces during the American Civil War. Several authors explore a similar topic of army reorganization with papers looking specifically at the Romanian Army before and the Latvian Army during the Second World War. Several articles focused on Sweden during the Cold War, one focusing on their cooperation with America and Finland, and others about their perception of Soviet CBRN and its residual effects on their current military doctrine. For those interested in modern history, Jesper Nielsen investigates the utilization of counterterrorism intelligence capabilities of the Danish Armed Forces during the War in Afghanistan. Valdis Kuzmins compares the mass infantry tactics of the USSR's Active Bayonets to Russia's Storm-Z Battalions to question the role of military history in enhancing the combat capability of modern armed forces.

## Working Group 3: Military Technology

Led by Hannu Kari with assistance from Micheal Dunning, Kent Andersson, and Thomas Frisk. This working group was a large proponent of changing the conceptual modelling of our military necessities. For the military professionals interested in communication, Issac Nitschke argues that the Canadian Navy/Navies should employ more open-source intelligence and better cooperation between the military and civilian organisations. For those looking into the future, Kent Anderson and Partick Stensson discuss how the Swedish military needs to improve their communication regarding technical forecasting to protect Sweden in the chaining political climate. Similarly, Juha Kai Mattila discusses how European countries should change their military forecasting model to focus on force generation and utilisation to build their industrial capabilities. Sefora Pereira examines the current methods used to teach military sciences while Suzanna Lampreia, Valter Vairinhos, and Victor Lobo took similar approaches regarding the armed forces. Jens Matheisen and Khalid Shafi argued that due to the rise of climate disasters and the trend of employing the armed forces to help in recovery efforts, more planning and resources are factors to consider to better equip the military's ability to fight climate disasters.

## Working Group 4: Leadership, Command, Control, and Basic Competence

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Led by Petter Olsthoorn with assistance from Daniel Packham discusses a large variety of subjects from the current war in Ukraine to evaluating military COVID-19 leave policies. For those interested in the war in Ukraine, Nino Tabeshadze investigates the impact PTSD is having on commanders in Ukraine, determining what negative impacts PTSD will have on the decision-making performance of the Ukrainian Military Leadership. To gain insight into how the war has impacted the civilian side of Ukraine, Helena Hermansson, Kateryna Zorya, and Sara Bondesson explore the effects on higher education institutions and examine how these institutions encourage donations and other volunteer efforts. Johannes Heverhagen and his colleagues examine the Swiss Militia's effectiveness in reducing the spread of COVID-19 during annual training, shedding light on the pandemic's broader impacts. Articles from this working group will help the two book projects *Policing the Grey Zone* and *Critical Senior Enlisted Leaders*. *Policing the Grey Zone* builds on concepts introduced in David Last and Marzena Zakowska's article, *Grey Zones and Modern Wars: Ramping up for New Challenges*. Meanwhile, *Critical Senior Enlisted Leaders* aligns with the core themes of leadership, command, and control, drawing direct inspiration from this working group.

#### Working Group 5: Military Law and Ethics

Led by Olavi Janes with assistance from David Turns. This working group focused much more on discussing military law over military ethics. For those following current news events, Ahmed Abdel Hakem looks at the applicability of international law in protecting submarine cables, given the recent string of broken undersea cables, Hakem's article is sure to hold relevance through the upcoming months. For those interested in communication and hybrid warfare, Eerik Heldna investigates the legal role and status of the Estonian Military Intelligence and civilian intelligence agencies in combatting disinformation. For those interested in the legality of military force, Maria Jellinek attempts to justify and explain their new interpretive approach to changes in the exclusive field of *Jus Ad Bellum* and how the non-UN strikes on Syrian chemical weapon facilities were legal in that they protected civilians. Maria Juczevska re-evaluates the doctrine and way of war for Russia and how it disregards the ethical way of war set out in the Geneva Convention. Our community of military chaplains found Working Group 5 and Working Group 7: *Armed Forces and Society* to be full of new ideas and conversation. Their participation and enthusiasm in the chaplains have led the ISMS to start a new book project, edited by Stefan Gugerel, *Chaplaincy, Ethics, Society: Inner and Outer Ministries*.

#### Working Group 6: Security and Defence Policy

Led by Laurenz Fürst, with assistance from Niklas Roszbach and the continuing involvement of Hans Lampalzer and Thomas Pankratz had three main themes, militaries of the future, emerging and existing geopolitical issues, and new forms of war and security. Jamie Gates investigates the current difficulties the UK is having in shifting its paradigms from fighting a prolonged counter-insurgency campaign to fighting large, armoured manoeuvre warfare. Ali Dizboni and Robert Addinall discuss the future of force structure planning in the Canadian Armed Forces and how new and specialised equipment combined with inexpensive mass-produced munitions are necessary for our forces to take on multi-level conflicts. For those interested in international security politics, Anne Sofie Schøtt discusses India's rise as a global power. Specifically, they ask how far India is willing to go in terms of cooperation with the United States if it comes to conflict with China or Russia. Eero Kytömaa and Ørjan Karlsson compare the framework and whole of society preparedness of the Finnish Security Committee and the Norwegian Total Defence Forum to determine which best addresses the current polycrisis reality. In response to emerging security threats and evolving forms of security, many authors

have examined hybrid warfare. Björn Palmertz and colleagues advocate for developing psychological defence tools to safeguard democratic institutions and the population from foreign influence. They propose creating a framework that enhances situational awareness, addresses defence and countermeasures, and assesses state systems designed to counter foreign interference. For those interested in the cyber domain, Brandon Valeriano and Mikkel Storm Jensen look at the increasing role of offensive cyber operations in gray zone operations. They have developed a wargame to illuminate the dilemma from major and minor powers' perspectives and identify potential regional differences in response patterns.

#### Working Group 7: Armed Forces and Society

Led by Rene Moelker with assistance from Kristin Lungkvist. Working Group 7 had a few themes between members of the working group and outside the working group. Working Group 7 started with a panel of Swedish researchers who discussed Sweden's psychological defence. This panel discussion explores psychological defence as a unifying concept, connecting scholarly discourse on military and civil defence with a shared focus on Sweden's total defence strategy. In the cognitive domain, Dorota Domalewska explores the role of social media in shaping modern information warfare, highlighting its use as a platform for delivering attacks and directly influencing populations. Also related to domestic defence, Helena Kilpeläinen, Miina Kaarkoski, and Reetta Riikonen investigated how willing the Finnish reserves are to defend the country given the recent changes in defence strategy in joining NATO. While Ieva Bērziņa compares the domestic resilience of both Finland and Latvia in their case study, using desk research, the paper aggregates survey data, expert assessments, and other data types describing each identified variable concerning Finland and Latvia. Erik Melander challenges an American and Russian cultural assumption, that a country with traditional gender roles will have a stronger army and those without gender roles would have a weaker army. Their preliminary findings suggest that Russia, with a very gendered military, has performed worse compared to Ukraine, which has a more gender-equal military.

#### Working Group 8: Defence Economic Management

Chaired by Marcus Gauster with Co-Chair assistance from Adriana Ávila-Zúñiga Nordfjeld, and Ugurhan Berkok, Working Group 8: Defence Economics and Management produced several intriguing articles. Benjamin Cole argues that Australia modernised air defence capabilities and procurement to maintain a deterrence effect. Adriana Ávila-Zúñiga-Nordfjeld, Dimitrios Dalaklis, and Harold Workman argue for a new conceptualization and method to address emerging threats to our maritime domain. Imoh Antai explores the effects of security alliances on logistical growth, showing that organisations like NATO aid in expanding logistical capability. Through the hard work of this working group as well as all the others, the ISMS is working on Building Defence Capabilities for a Dangerous Time, an upcoming book containing many articles from Working Group 8 and articles from other Working Groups, showcasing the close working relationship between working groups. The book discusses how some countries choose to modernize their armed forces, how to increase our domestic resilience and better defend our civil infrastructure from emerging adversaries, and how government departments can better interact with the civilian defence ecosystem.

#### Working Group 9: Military Education

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Led by Anne Marie Hagen with assistance from Lars Wikman and Björn Sjöblom, Working Group 9: Military Education brought together educators from military universities and academies worldwide to discuss ways to improve professional military education. Working Group 9 had a large and diverse group of military educators from around the world present their perspectives on developing critical thinking skills in their respective military universities. Chris Morris and colleagues conduct a case study to explore ways to digitize the professional military education system to enhance the quality of education. Meanwhile, Björn Sjöblom examines methods for better-integrating wargaming into the existing education framework. The themes and articles from this working group are compiled for an upcoming ISMS book project, *Critical Senior Enlisted Leaders*. This book will explore the significance of professional military education for Senior Enlisted Leaders (OR-8 and above) and examine how ISMS member countries structure their educational programs.

#### Working Group 10: Strategy

Led by Jānis Bērziņš, Lukas Milevski with local support by Viktoriya Fedorchak and reviewing assistance by Thomas Pankratz, discussed strategies on a wide range of subjects. The topic with by far the most overlap between working groups is the discussions on domestic defense against cognitive warfare which should interest those in the communication field. Mmag Andreas and Brig. Gen. Stupka from the Austrian Ministry of Defence discussed the impact of cognitive warfare on the population's willingness to defend. They emphasized the need for stronger measures to protect the population from foreign cognitive warfare tactics. For those more interested in global power strategy, Adam Bushard's paper on Chinese global power projection focuses on the specific military capabilities China has built in recent years to achieve the goals set out in Xi Jinping's 2015 military reforms. For those interested in the current War in Ukraine, Emmanuel Karginnis investigates the semi-privatisation of wars by Russia and the influence of the Wagner group on Russian Strategy and Military culture during 2022-2023.

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# Working Group 1: War Studies, Operations & Tactics

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# Bioweapon Conspiracies: Cognitive Warfare Based on Viral Stories about Genetically Manipulated Pathogens

## WORKING GROUP 1: WAR STUDIES AND OPERATIONAL TACTICS

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In the cognitive domain of warfare, the perception of war is an important factor beyond actual capabilities and real situations or actions. Central to psychological operations is the use of communication, including how to defend oneself against the strategic use of false or misleading narratives. Communication science's study of conspiracy theories has, in recent years, amounted to a pool of knowledge about the qualities tied to such problematic narratives that 'go viral.' Several conspiracy theories in modern history have been rumours about bioweapons—from controversies during the Korean War through HIV disinformation campaigns to COVID-19 conspiracies. During the past decade, these disinformation narratives have come to contain a novel component, that of genetically tailored bioweapons.

A rapid increase in the technical capability to sequence, manipulate, and synthesize DNA, paired with the ever-broader use of genetics in healthcare, has resulted in a situation where we hold and share more genetic data than ever before. Parallel developments in artificial intelligence will likely open new possibilities for designing and synthesizing bacteria and viruses from scratch, indicating a future environment where narratives about bioweapons targeting humans with a specific genetic makeup will continue to thrive.

This paper seeks to highlight communicative risks in wartime tied to conspirator narratives about bioweapons, moving from a historical review to a discussion about the potential modern-day risks by grounding the discussion in insights from research about conspirator narratives combined with a technological analysis on the probable de-facto future risks with genetic technologies. The aim is to address the communicative dimensions of genetic warfare—from accusations as communicative instruments of power to an understanding of the communicative structure making conspiracies go viral, ultimately aiming to contribute knowledge on how to counter them under situations of grey zone conflict and hybrid warfare.

# Charting the Course: Integrating Force Design and Doctrine in Operational Art

## WORKING GROUP 1: WAR STUDIES AND OPERATIONAL TACTICS

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This proposal aims to broaden the scope of operational art theory under the assumption that the elements of force design and military doctrine are fundamental components of the concept. The analysis and understanding of the conduct of military campaigns and operations have always held a privileged place in the theory of warfare through components such as 'maintenance of military force' and 'preparation for war', idiosyncratic responsibilities of the General Staff. In this context, the concept of 'operational art' emerges to describe the component of military art that deals with the theory and practice of planning, preparation, and conduct of large-scale military campaigns and operations, thus being directly connected to the 'way of war'. Overall, the specialised literature on operational art focuses on the particular models of operational conduct of specific countries, especially because there is no theoretical systematisation of what constitutes operational art or the indicators and categories of analysis that make the identification and categorization of operational art tangible. Previous efforts to develop a "theory of operations" list information, administration, logistics, fire support, and command and control as the main elements of operational art. Thus, through a systematic and integrative review of the literature on operational art, the effort of this proposal is to systematise the categories of analysis mobilised within operational theory and to show how the elements of force design and military doctrine should also be among the main indicators of operational art to corroborate the hypothesis. This work argues that on the side of force design, its importance lies in the focus of the element on the organisation, training, equipment, and posture of the force to meet the demands of the operational environment. On the doctrinal side, it is argued that the relevance of the element lies in its ability to identify assumptions and key concepts to provide a common basis for understanding operational thinking.

# Drone Warfare and Mimetic Theory: The Case of Russia and Ukraine

## WORKING GROUP 1: WAR STUDIES AND OPERATIONAL TACTICS

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Conventional wisdom suggests states pursue larger advanced unmanned aerial vehicles (UAVs) or drones due to their enhanced capacity, range, and security. In contrast, violent non-state actors (VNSAs) rely on more minor, cheaper, low-tech basic variants. Nevertheless, recent empirical studies have challenged these views by highlighting states' adoption of basic UAVs in armed conflicts through mimicking behaviour. Consequently, appeals have been made for the development of new theoretical frameworks that can shed light on these observations.

The current investigation is a response to these calls as it presents a novel drone mimetic theory to account for these phenomena and the broader mimetic processes based on the works of René Girard. It argues that actors' inclination to imitate is primarily driven by military objectives and relational pressures, and perceived advantages in these areas incentivise actors to mimic each other's drone capabilities and approaches. These mechanisms promote mimetic rivalries that either result in temporary successes or crises and scapegoating cyclically. These mimetic processes can account for the blurring lines between states and VNSAs regarding basic drone usage. An analysis of what has been dubbed the world's first drone war between Russia and Ukraine illustrates these dynamics at work. The current inquiry presents the first systematic, theoretically informed study of this armed UAV conflict.

# Irregular Dimension of the Russian Military Forces: Ensuing Implications in the Wartime and Post-War Settings

## WORKING GROUP 1: WAR STUDIES AND OPERATIONAL TACTICS

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The more than two-year-long open-ended war in Ukraine caused by Russia's invasion in February 2022 has changed the Russian military forces radically and irreversibly. One of many phenomenal outcomes of the war was the emergence, proliferation, and further evolution of the irregular volunteer component within the Russian forces operating in the Ukrainian war theatre. This component represents quite a heterogeneous pool of paramilitary actors, formally integrated into the regular order of battle and the chain of command but preserving its own internal dynamics and outside links. It encompasses many dozens of diverse outfits based on their ethnic or regional origin, political or ideological affiliation, cultural-historical tradition, or common interest. Several actors to mention in this regard are the proliferating "private-military companies" (which in Russian settings have a different notion than in the West), the Cossack and Chechen formations, the so-called BARS battalions, armed groups sponsored by different oligarchs and political movements, and the assault detachments composed of the freed prison inmates.

The ascendance of the proliferating paramilitary volunteer component is among the factors contributing to the gradual primitivization and brutalization of the Russian way of war. Many of those outfits maintain loyalties other than to the state: to their ethnic groups, regions of origin, formal and informal political or ideological leaders, and/or financial sponsors. That condition precipitates the potential erosion of the state's monopoly on violence when its sub-systems become more autonomous and start acting for their own benefits rather than in the interest of the state. Beyond that, the members of the paramilitary entities returning from the war already generate social effects, particularly contributing to the increase in criminal violence in Russia. Alternatively, the loyal veterans are considered a "cadre reserve" for promotions in the system at the local, regional, and even federal level. In a conceivable scenario of the deepening crisis caused by multiple effects of the long open-ended war on Russia, the non-systemic volunteer formations and their individual veterans could emerge as an active factor influencing the unfolding dynamic.

Therefore, the presentation addresses the following aspects:

- Typologies of the irregular volunteer formations participating in the Russian war in Ukraine
- Their structural parameters, motivations, modus operandi, and other characteristics. Their relations with the regime and the regime's measures of control over the volunteer formations.
- Potential social and political implications of the paramilitary phenomenon in Russia's post-war settings or in the extended frozen conflict scenario.

# The Africa Corps/Wagner Group: A Vehicle for Authoritarian Conflict Management

## WORKING GROUP 1: WAR STUDIES AND OPERATIONAL TACTICS

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The remnants of Wagner Group, despite the 23 June 2023 mutiny in Russia and the subsequent death two months later of its public face, Yevgeny Prigozhin, remain impactful on the African continent. The EU High Representative for Foreign Affairs and Security Policy, Josep Borrell, contends that “[t]hey will remain operational in Africa because it is the armed wing of Russia.”[Gray and Latona, 2023] Joana de Deus Pereira of Royal United Services Institute stresses that “[w]e have to look at Wagner not only as a single man but as an ecosystem, as a hydra with many... heads and many diverse interests in Africa”(Murphy, 2023).

Given this sense of momentum, the paper frames Russia’s Africa Corps, formerly Wagner Group, as a purposeful tool of illiberal peacebuilding in Africa. Beyond descriptions of the Africa Corps/Wagner Group as the Kremlin’s ad hoc response to domestic instability in African countries, France’s post-colonial retrenchment, and Russia’s political and economic needs in the context of the war in Ukraine, this armed actor is a vehicle for authoritarian conflict management. The paper analyses how the Africa Corps/Wagner Group works across the three levels of discourse, space, and economy to control African conflicts and manage their outcomes. This is done in a manner that both underscores the domestic establishment of authoritarianism and its international spread and works in contradistinction to liberal peacebuilding (with its focus on democratic consolidation, the advancement of capitalist economics, and human rights promotion and protection). The paper also recognizes the limitations of such an approach given its ability to generate resistance and the limited extension of governmental presence to largely only resource producing areas. The paper warns that while such assessments might open room for the reassertion of Western-led liberal peacebuilding, Western policymakers would be wise to consider both the limitations of past efforts and the related rationales informing why engagement with the Africa Corps/Wagner Group was appealing to certain African states in the first instance.

Gray, A., & Latona, D. (2023, August 30). EU to prepare ground for sanctions on Niger coup leaders – borrell. Reuters. <https://www.reuters.com/world/eu-prepare-ground-sanctions-niger-coup-leaders-borrell-2023-08-30/>

Murphy, M. (2023, August 25). “What now for Wagner after Prigozhin’s death?” BBC News. <https://www.bbc.com/news/world-europe-66604261>



# Combat Cohesion in Ukraine

## WORKING GROUP 1: WAR STUDIES AND OPERATIONAL TACTICS

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I am writing a dissertation. My submission to the conference is the introductory chapter. In the dissertation I will answer the following question: How come some Ukrainian war fighters fight cohesively despite lacking social bonding and professional solidarity?

I approach the question by going directly to those who know best - the Ukrainian war fighters themselves. Over a period of 90 days, the majority of which were along the Ukrainian frontline, I listened to and interacted with soldiers. This methodological shift of listening to, and focalising soldiers and their experiences of war sets this dissertation apart from extant research on military group cohesion. Focusing on the individual war fighter is important, as they are the ones experiencing, embodying, and doing warfighting. My main contribution lies in focalising soldiers in the cohesion debates. By doing so I show how cohesion is instantiated in combat by how individual soldiers narrate themselves, their leaders, and the activity they participate in. Combat cohesion is key to understand warfighting, because cohesion differentiates a gaggle of armed people from an organised fighting force.

# Re-evaluating Urban Warfare: Lessons and Strategies from the Ukraine Conflict

## WORKING GROUP 1: WAR STUDIES AND OPERATIONAL TACTICS

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The recent full-scale invasion of Ukraine in 2022 has underscored the prophetic nature of the assertion that future battles will predominantly occur in urban settings. While historically prevalent, urban warfare faces evolving dynamics due to rapid urbanisation and technological breakthroughs. This paper aims to critically analyse urban operations on contemporary and future battlefields, drawing lessons from the Ukraine conflict.

Our approach begins with an examination of 11 pre-war Ukraine war takeaways, assessing their relevance and need for adaptation in today's conflict scenarios. These include the complexities introduced by urbanisation, the role of multi-domain operations, the impact of the information environment, and the integration of new technologies in warfare. The paper seeks to evaluate the persistent and emerging challenges in urban warfare, discussing strategic adjustments and proposing best practices derived from recent experiences.

This study not only revisits pre-established military doctrines but also anticipates future urban conflict characteristics. By aligning the lessons from Ukraine with broader military strategic thinking, the research will offer a refined framework for understanding and conducting urban operations amidst the modern geopolitical and technological landscape.

# Information Warfare Beyond Technology: Understanding the Psychological Dimension of the Russian-Ukrainian Conflict

## WORKING GROUP 1: WAR STUDIES AND OPERATIONAL TACTICS

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This research analyses Information Warfare beyond the employment of technology and explores the informational asymmetries created in the theatre of operations that result in operational and strategic gains. The focus is on the Russian concept of Information Warfare, particularly its informational-psychological aspect, which is based on the Reflexive Control Theory (RCT). This theory discusses how interferences work in decision-making capability, either directly against the cognitive domain of strategic decision-makers, or through the disruption of the adversary's command and control systems. Some technophilic views interpret Information Warfare solely through its cyber-technical (or informational- technological, according to Russian terminology) operational aspect, which consists of the use of cyberattacks to disable and/or dismantle systems, either civilian or military. In this case, cyber operations intersect with Electronic Warfare, such as jamming attacks. This view considers that the use of technology alone would determine the outcome of contemporary conflicts. However, there is another side to Information Warfare, which not only does not depend solely on technology to achieve its objectives, but also transforms it into a vulnerability. Our research is based on the Russian doctrinal and theoretical conceptions of Information Warfare, given the primacy that Information Warfare in the broad sense assumes in the military and state tradition of said country. Nevertheless, the findings and conclusions can be extrapolated to and reflected on by other actors. We present the Russian-Ukrainian conflict as a case study for understanding the aspects of Information Warfare beyond those strictly related to technological elements. The research question is: how does Russia employ the cyber-cognitive aspect of its Information Warfare concept in the conflict with Ukraine? The main objective is to analyse the cyber-cognitive aspect of the Russian concept of Information Warfare in the conflict with Ukraine. Our specific objectives are: a) to distinguish the informational-psychological aspect from the informational-technological aspect; b) to analyse the use of the informational-psychological aspect through the RCT in the Russian-Ukrainian conflict. Regarding the methodological approach, this is a qualitative and descriptive research, which we will conduct through consultation of primary and academic bibliographic sources.

# Ukrainian Tactical Adaptation and Lesson Learning from the Russia-Ukraine War

## WORKING GROUP 1: WAR STUDIES AND OPERATIONAL TACTICS

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This article engages with tactical behaviour and tactical adaptation to capture how military change processes at tactical and operational levels during combat can generate doctrine. By studying selected traits of tactical behaviour of Ukrainian military units in the Russia-Ukraine War, I attempt to appraise of the character of lessons learning processes. I am interested in the traits of rushed or urged military adaptation and the command margin of manoeuvre.

Drawing from scholarship on contemporary warfare it is clear that most studies focus on the perennial significance of commanders' judgment and leadership skills. Crucial to command roles is application of doctrine, regulations and procedures. In contrast, I will explore how experiential and situational factors combined, exhorted the Ukrainian Armed Forces (AFU) to adapt under strain. The battle field dynamics have been influenced by a multitude of weapon systems, high ranking allied nations war fighting and doctrinal advice fed into various layers of the AFU, uncoordinated and ad hoc offers of military support requiring an absorption capacity, etc. What happens to our understanding of command and control when we zoom in on context factors guiding the commanders' sense-making of the situation? The core interest of this study can be thought of as enhanced command agency, the discretion of a military leader to create manoeuvring space for instantaneous adaptation in complex situations. How can we conceptually grasp what aspects of tactical behaviour scale up the chain of command and may constitute a change process of significance for higher command and control? Does it make sense to picture the policy process doctrine-command-tactical behaviour-learning-doctrine development as loop-shaped rather than linear?

The study seeks to flesh out the exercise of enhanced command agency, or 'sense-making' powers as I will propose below. In this reading, battle ground realities are interlocked with command agency. Despite several influential works emphasizing that combat contextual factors play a role in shaping regulations and command procedures, there is still a dearth of empirical attempts at illuminating and describing how this actually works. I will make the case that tactical actions are properly viewed as reflective of how wars are learning environments where command power in essence is about the ability to adapt to battle contingency and uncertainty.

# Shifting Battlespaces: Navigating the Cognitive Frontiers of War in the 21st Century

## WORKING GROUP 1: WAR STUDIES AND OPERATIONAL TACTICS

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The evolving information landscape and AI-enabled techniques have facilitated the emergence of cognitive warfare (CogWar), an unconventional form of conflict designed to manipulate mental processes, including perception, beliefs, and decision-making. This exploits cognitive flaws using digital technologies and algorithms. CogWar encompasses various operations, such as information warfare, cyber warfare, psychological warfare, and political warfare, while incorporating aspects of cognitive neuroscience. CogWar operates at two interconnected levels: strategically, it aims to destabilize societies, states, and alliances; tactically, it targets specific military capabilities, personnel, and operations.

Key adversaries of the democratic states – Russia, China, and Iran – have actively engaged in strategic CogWar, but they have not been directly involved in operations at the tactical level. As a result, experts have focused more on the challenges for the social ecosystem than the military one. This is a critical oversight as cognitive activities against armed forces will seek to undermine troops' combat readiness and efficiency. This can be achieved by manipulating the perception and judgment of soldiers, inducing information overload, creating cognitive stress, impairing their attention, decreasing situational awareness, degrading decision-making abilities, comprising unit cohesion, and undermining the effectiveness of human-machine systems. Additionally, the potential rise of neuro-bioengineered super soldiers poses risks of their cognitive manipulation, disruption, and control. Neuroenhancements will strengthen soldiers' cognitive resilience while at the same time introducing new critical vulnerabilities.

In response to the rise of non-kinetic “soft-kill” warfare that targets the human brain, NATO formed an expert group and, based on its findings, will announce its Cognitive Warfare Concept in the summer of 2024. However, as offensive CogWar challenges Western conceptions of war and the right to self-defence, NATO does not consider information manipulation an acceptable measure of action. This paper argues that as the threat of large-scale cognitive attacks grow, democracies must reconsider their ethical, legal, and political stance on offensive CogWar tactics and strategies in both the societal and military realms.

Relying on defensive and preventive measures alone is not an acme of sound strategic thinking but rather a sign of strategic atrophy. NATO urgently needs a paradigm shift. Only by taking an active role can it alter the dynamics of CogWar in its favour. The paper concludes with initial recommendations for action, starting with defensive and moving towards more offensive cognitive measures.

# The Potential of AI to Alter Warfare in the Air Domain: A Review of Recent Discussions and Battlefield Developments

## WORKING GROUP 1: WAR STUDIES AND OPERATIONAL TACTICS

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This paper examines how artificial intelligence (AI) alters conditions for warfare by examining discussions on the potential of using artificial intelligence (AI) in warfare in the air domain and the actual uses of it in this domain in Israel and Ukraine. Despite widespread attention to AI in the domain of warfare in recent years, few systematic reviews of debates and literature exist on how AI applications alter warfare and few reviews of the recent uses of AI in warfare in current wars. The paper discusses critically assumptions inherent to the debate on AI's potential to alter warfare. It foregrounds some areas in which AI substantially impacts and will most likely grow in importance. Doing so, the paper conceptualises how AI-powered systems alter warfare and what the implications are for warfare in the air domain. The paper ends by discussing the implications of the findings and for tactics as the for small state development and application of AI in warfare in the air domain grow in scope.

# The Challenge of Public-Private Partnerships Towards Grand Strategy Designs for Defence

## WORKING GROUP 1: WAR STUDIES AND OPERATIONAL TACTICS

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The ongoing war on Ukraine (2022- ), the conflicts in the Middle East, the potential proxy wars between the USA and China with potential battlefields in Venezuela or Myanmar, and other security threats, including cyber-attacks, hybrid threats and disinformation call for defence organisations to invest in resilience and transformation to tackle challenges. This suggests that the strategic environment of the next decade will be very different from what it looks like now or what it was in the past. Against this backdrop, governments are increasingly partnering with the defence sector to go beyond its remit of reactive defence towards proactive defence by investing in strategic policies, concepts and assessment capability plans that enable the defence organisation to withstand challenges overtime. This attitude is also reflected in the institutional publications developed at the EU and NATO levels in the period between 2017-2023.

On this basis, it is possible to infer that the inclusion of public-private partnerships between governments and defence is key in the crafting of a defence grand strategy, the results of which can shape the world of tomorrow, calling thus for an evolution in the interpretation of the concept of the grand strategy itself. This paper highlights the significance of knowledge for partnerships in providing the state with the necessary tools to react as circumstances dictate and their role in exploiting the existing capabilities to determine the direction/subject of geopolitical debates. The work makes an empirical contribution to the field of defence & strategic studies, and a practical contribution in security consultancy.

# Possible Approaches to Assessing the Resilience of the Defence of a Group of Troops to be Taken into Account when Planning Operations

## WORKING GROUP 1: WAR STUDIES AND OPERATIONAL TACTICS

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Resilience is a term that has many meanings in various fields, both humanitarian and purely technical. This sometimes leads to a misunderstanding of the approaches used to assess resilience itself and its impact on the outcome of the operation (action). Moreover, the meaning of the term resilience in the military sphere also varies. Therefore, this study offers an attempt to generalize the meaning of the term resilience in the military sphere.

An important question regarding defence resilience is the definition of its components. Defence resilience is proposed to be determined directly based on the components of combat power, in particular conceptual, physical, and moral. Ensuring the resilience of each of these components will ensure the overall resilience of the defence. The components of resilience, based on the adopted concept, can include conformity and adaptability of doctrines, readiness and technology of troops, and moral and psychological readiness of personnel.

Here, doctrinal conformity means the ability to take into account modern challenges on the battlefield by existing doctrinal documents. The adaptability of doctrines means the ability to adjust doctrinal documents to new challenges in the shortest possible time. The readiness of the troops means the ability to conduct combat operations, taking into account the number of personnel, their training, and the availability of weapons, equipment, and ammunition.

Technology is understood as a characteristic of the level of technologies used to ensure resilience of defence. Moral and psychological readiness of the personnel is the ability of the personnel to perform combat tasks taking into account the moral orientations of the conflict, psychological resilience, and communication both within the armed forces and externally.

This is a generalized division of defence resilience components that needs further detailing. It should also be noted that a more detailed consideration of these components and their clustering will allow us to more accurately determine the factors that affect resilience.

The next problem proposed for consideration is the formalization of resilience through certain evaluation indicators (criteria). The essence of the problem is that resilience is very difficult to formalize because these indicators are usually interdependent. This makes it necessary to take into account certain correlation effects. However, it is difficult to determine the exact values of correlation moments, especially without practical verification. Therefore, the study proposes to identify resilience assessment indicators and possible correlation effects between them.



# The Operational Level of War: Definitions and its Relation to Operational Art

## WORKING GROUP 1: WAR STUDIES AND OPERATIONAL TACTICS

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A much-discussed concept in military theory is the concept operational level of war. The operational level, at least among its proponents, is said to provide some form of connection between the strategic and tactical levels. However, the concept has attracted a lot of controversy. For one thing, there is disagreement about whether the operational level is useful or even exist. Moreover, there appears to be a lot of controversy regarding what constitutes the operational level. While conceptual disagreement is a quite mundane phenomena, it has been stressed what is at stake in this case is not merely conceptual clarity. Concepts such as the operational level have practical consequences concerning life and death.

The aim of this paper is first to provide an overview of common definitions of the operational level and investigated to what extent the concept is a unified concept. That is, to what extent the concept is defined consistently. By doing so, the paper offers a first step towards clarifying to what extent the interlocutors in the debate surrounding the concept of the operational level are in substantive disagreement. If the term is defined differently, this suggest that those engaging in this debate could, to some extent, be talking past each other. To do this, literature mentioning the operational level of war is surveyed. Work engaging in the debate about whether the operational level is then singled out, and the accounts of the operational level found in this work is compared.

Second, the paper also investigates how the concept of the operational level is related to the concept of operational art and to what extent there are different views about this relation. The concept of operational art often appears in debates regarding the operational level. Thus, to bring further clarity to what different accounts of the operational level there is, it is illuminating to address its relation to the concept of operational art.

It is found that accounts of the operational level vary in their generality. Moreover, the accounts are nested in the sense that most of the less general accounts can be subsumed under the most general account. Moreover, the less general accounts overlap in various degrees. Regarding the relation between the operational level and operational art, various assertions are made ranging from treating them as synonymous concepts to claiming that they are not interrelated at all.

# The Impact of Hybrid Threats on Operations in Modern Warfare

## WORKING GROUP 1: WAR STUDIES AND OPERATIONAL TACTICS

Viktor Savchenko

Deputy Chief of Staff, 30th Marine Infantry Corps, Armed Forces of Ukraine

The relevance of this paper stems from the evolving nature of warfare, marked by changes in forms and methods. This study analyses the hybrid war the Russian Federation instigated against Ukraine. Characterized by a combination of actions involving covert deployment of regular troops, illegal armed formations, terrorist organizations, propaganda, sabotage, and terrorist attacks, this hybrid warfare model is expected to shape future armed conflicts, significantly impacting military operations.

Hybrid threats pose challenges in identification and tracking due to their cunning and implicit methods. Commanders on different levels actively seek ways to identify these threads and protect subordinate forces.

Hybrid threats directly affect the operation during its preparation phase and throughout conducting in a defined operational area. These threads can be typically divided into four levels of influence: political, legal, informational, and physical or kinetic (directly related to human material loss).

The Russian Federation has initiated actions at the diplomatic level in advance, affecting internal political processes in Ukraine. These measures included creating a belt of instability, influencing and applying double standards, portraying Ukraine as a "Security Threat," actively interfering in elections, infiltrating agents of Ukraine's government and security structures, and stimulating corruption.

The Armed Forces of the Russian Federation, whenever possible, avoided direct military confrontations and widely employed asymmetric actions, illegal armed formations, terrorist organizations, and criminal elements. At the same time, the deployment of regular troops (forces) was conducted covertly. All these measures at the legal level curbed the full exploitation of the Armed Forces of Ukraine.

Russian propaganda, an artificial parallel informational reality, along with elements of cyber warfare are significant factors in influencing the information space of the population of Ukraine, the population of the Russian Federation, and the global community.

Simultaneously, the Russian Federation employed sabotage, tactics of terror, sabotage, and the involvement of proxy forces to destabilize the situation and increase pressure on the military-political leadership of Ukraine.

The paper aims to identify factors impacting armed forces' effectiveness under hybrid threat influence and the broader context of modern military conflicts. The study outlines key areas for commanders to address when countering hybrid threats during preparation and execution of operations.

# Working Group 2: Military History

## Working Group Chair:

Art Johanson; Baltic Defence College

## Co-chair:

Tae Hon Kim; Swedish Defence University

## Asmus Strategic Vision makes a Comeback: Finnish-Swedish Role in Defending the Baltics

### WORKING GROUP 2: MILITARY HISTORY

Andris Banka  
University of Greifswald

When during the '90s, the three Baltic countries embarked upon their NATO membership journey, Western critics regularly aired objections that these states were not militarily defensible. To neutralize such concerns, NATO enlargement architects on the US side, Ronald Asmus and Strobe Talbott, had proposed to look in the direction of the Nordic countries. The plan, sketched out in 1997, was to woo the Finns and Swedes to join NATO ranks, a move that would effectively alleviate the Baltic problem of strategic depth. At the time, Nordic leaders balked at the idea. With Helsinki and Stockholm now officially under the NATO umbrella, it is well worth revisiting the arguments and discussions surrounding the proposal of putting Nordic countries in charge of Baltic security. Drawing primarily upon declassified US State Department materials, this article sheds light on the topic of Nordic-Baltic security linkage and how it was perceived by Finnish and Swedish diplomats at the time. Subsequently, the paper assesses how the double Nordic alliance membership today may benefit the strategic outlook of the three Baltic states.

# The Neutral Past – How Military History used in Staff Rides can Facilitate Learning and Help Officers Prepare for Future Operations

## WORKING GROUP 2: MILITARY HISTORY

Anna Sofie Schøning  
Royal Danish Defence College

“If you want a new idea – read an old book” goes the saying often ascribed to Ivan Pavlov. However, How the past facilitates the new is often left implied and not always clear? The same can be said in regards to how it is possible to learn from historical staff rides. What does the study of a historical case bring about, that could not have been achieved by studying a fictional or abstract case? Can lessons be learned from past battles in a different way when in the terrain or could the same learning objectives be achieved in the classroom? Can discussing past battles in the terrain where these battles took place support decision-making and help prepare commanders and staff officers for future operations? These are some of the questions, which I will try to answer in the current article, where I investigate how historical staff rides can facilitate learning and potentially help officers prepare for future operations.

I aim to answer the above questions by investigating the existing literature on analytical staff rides used within defence forces for either educational or planning purposes. Furthermore, I draw on interviews and field notes collected during my participation in a staff ride on the allied Italian campaign conducted by the Royal Danish Defence College for Multinational Division North. The above questions come with theoretical implications regarding the relation between past, present and future. To investigate some of the epistemological underpinnings of how military history facilitates learning I draw on theory of history.

## Military or Humanitarian Aid? Sweden, Neutrality and the Case of FRELIMO in Mozambique 1964–1975.

### WORKING GROUP 2: MILITARY HISTORY

Christian Kjellsson

Department of Military History, Swedish Defence University.

In this case study, I discuss the ways in which the Swedish foreign affairs and aid policy towards southern Africa developed from the early 1960's in relation to Sweden's policy of non-alignment in peace with the intention to be neutral in the event of war. I have chosen to study the Swedish government's support mediated via Swedish International Development Authority (SIDA) to the national movement FRELIMO in Mozambique 1964–1975.

The main questions asked in this study were: When and under what circumstances did Sweden provide aid to FRELIMO? What was the nature of the aid? What arguments were put forward and how was the matter of support to FRELIMO being discussed in relation to the policy of Swedish neutrality?

I have discovered that the aid to FRELIMO developed and changed in terms of both content and execution. While the early aid consisted of relatively small cash grants it developed in a relatively short period into commodity aid worth millions of Swedish kronor – containing everything from provisions and children's shoes to custom built heavy lorries painted dark green. This study strengthens the results from the study of Swedish historian Urban Lundberg, where he argues that the boundary between what was humanitarian aid and what was military aid was blurred.

My study also shows that Swedish officials at both SIDA and the Ministry of Foreign Affairs knew that FRELIMO employed the material they delivered in military operations, even tailoring the aid to fit FRELIMO's military challenges, despite the Swedish policy of non-alignment in peace with the intention to be neutral in the event of war. For example, they started sourcing powerful motorboats that could be used for troop transports and/or as system platforms.

# Early Swedish-US military Cooperation 1943-1955

## WORKING GROUP 2: MILITARY HISTORY

Gellert Hardi-Kovacs  
Swedish Defence University [cfm]

Kim Tae Hoon  
Swedish Defence University [cfm]

My lecture will be an excerpt from my broader research on Swedish intelligence during WW2, namely the first contact between US and Swedish military during WW2. These contacts were taken in 1943, at a time when Sweden wanted to reshape its perceived pro-German orientation from the early years of the war. OSS, the newly established American foreign intelligence, did not lack resources, but experience, know-how and networks in Europe. The Swedes could provide them with much of that, and would gain "good points" and recognition from the Allies after the war.

Within only one year the cooperation extended to a great number of different projects and missions. Some of them very secret and pure intelligence-orientated, others more towards conventional military goals. Maybe the most well-known are the Sepals, a line of bases in the mountains right on the Swedish-Norwegian border in the arctic region, manned by US secret agents, Norwegian resistance fighters but also Swedes. Serving the bases was an enormous and sophisticated logistic undertaking with hundreds of tonnes of equipment flown into Stockholm, put into depots all around the city and then taken up north. Through the Swedes the OSS wanted to play a greater role in the Scandinavian theatre of secret military operations, an area was the British guarded their networks and know-how jealously.

Less known are US-Swedish actions to get in touch and build up pro-western (and anti-Nazi as well anti-Soviet) resistance in numerous countries like the Baltic states, Hungary and in Germany itself. These actions consumed considerable planning and resources, put participants in great danger, but the gains were questionable.

These actions continued and became even more extensive after the war, when the espionage was directed solely against the communist states and the former German enemy had become an ally. This cooperation would suffer tragic setbacks when two Swedish airplanes on intelligence mission against the Soviets were shut down. I would like to present these early years of a cooperation that became known only long after.

## How Soviet Chemical Weapons were perceived by the Swedish Armed Forces during the Inter-War Period, and why this Still Matters a Century later.

### WORKING GROUP 2: MILITARY HISTORY

Gunnar Aselius  
Swedish National Defence University

In my presentation, I take a new look at the early stages of the Swedish chemical weapons program, taking as my point of departure Swedish historian Wilhelm Agrell's seminal work *Svenska förintelsevapen* from 2002 (Agrell, 2002). The Swedish chemical weapons program operated from 1928 until the early 1960s and included testing of both mustard gas and nerve agents like sarin, but never went into full production. The period leading up to World War II saw the foundation of a Swedish "military industrial academic complex" which would play a central role in the modernization of academia, natural science, research and development in Sweden during the Cold War - not least through the creation of the Swedish Defence Research Agency in 1945 (FOI). While Agrell's work offered a valuable first-overview some 20 years ago, my contribution at the present conference aims at offering some insight in depth regarding training and organization during the 1920s and 1930s. What did the Swedes know of Soviet chemical weapons and how did these insights and assumptions influence them? As has been demonstrated by military historians studying the Red Army during the inter-war period, military theorists like Mikhail Tukhachesky, Vladimir Triandafillov and Georgii Isserson saw chemical weapons as an integrated part of modern offensive operations and an easy way to achieve strategic surprise. There is no reason to believe that the Armed Forces of the Russian Federation in the 2020s view this differently.



# The Operational Environment in Helmand 2006-14 - an Analysis of the Utilization of Intelligence Capabilities in Danish Counterinsurgency Operations

## WORKING GROUP 2: MILITARY HISTORY

Jesper Nielsen  
Royal Danish Defence College

The Danish Armed Forces gained extensive first-hand experience in counterinsurgency operations during their 8-year military campaign in the Helmand Province. However, there were significant deficiencies in the capabilities necessary for effective operations in this environment. Numerous publications indicate that Danish and other Western forces failed to adequately invest in grasping the operational intricacies of the War in Afghanistan. This lack of comprehension regarding Helmand's socio-political landscape, coupled with years of applying conventional military tactics against an irregular adversary, had resulted in a series of operational mistakes and resource misallocations. Unlike conventional warfare, which relies on concentrated firepower, a successful counterinsurgency campaign relies especially on the effectiveness of its intelligence apparatus. Thus, understanding the operational environment remains vital, with a strict need for timely and systematic intelligence collection, analysis, and dissemination throughout the campaign.

This abstract serves as the part of an ongoing Ph.D. dissertation (2023-26), which will explore a specific aspect of Denmark's military involvement in the War in Afghanistan (2001-2021).

The presentation will focus on my theoretical and methodological considerations in this early phase of the project. My aim is to shed a light on how tactical intelligence capabilities were deployed, adapted, and utilized over the Danish counterinsurgency campaign in Helmand from 2006-14. This will primarily be achieved through a historical analysis that will explore the development and implementation of tactical intelligence capacities and its effectiveness within the operational environment. The project is organized as a monograph in three sections. The first examines the theoretical landscape of intelligence use in counterinsurgency. The second provides a historical analysis of the Danish Helmand Campaign, using archival material and qualitative interviews with key personnel to clarify and expand on the archival findings. The third contextualizes the findings within contemporary counterinsurgency literature, identifying operational challenges and exploring effective solutions.

The theme of my dissertation aligns with the overall conference theme, as it is my belief that the final product will be a small brick in the overall evaluation of the Danish military contribution in the war in Afghanistan.

## Reorganisation of the Latvian Army in the First Months of Second World War (1939-1940)

### WORKING GROUP 2: MILITARY HISTORY

Karlis Dambitis  
National Defence Academy of Latvia

On 30 September 1939, the Republic of Latvia received an ultimatum from the Soviet Union, demanding a treaty between the two countries, in which Latvia would be allowed to deploy Soviet military bases on Latvian territory. In the face of military superiority, Latvia, like Estonia and Lithuania, which had received identical ultimatums, acquiesced. Almost immediately, the Latvian army headquarters started reorganizing the armed forces in order to mitigate the new threat and to facilitate and improve the defence of the country in the event of a potential war. This included the liquidation of several existing units and the formation of new units - the Anti-air Artillery Regiment and the Auto-Tank Brigade were just some of the new units, which were also to be equipped with equipment and tactical means appropriate to modern warfare.

Latvia's mobilization system and defence plans were also significantly changed, reoriented towards the Soviets instead of the previous German threat. Within 9 months, Latvia's defence system and mobilization plans had undergone a radical overhaul and significant structural changes. The army was prepared both technically and tactically in accordance with the prevailing knowledge of modern warfare. At the same time, the subsequent geopolitical developments in the west, where Nazi Germany had gained complete dominance in Europe, allowed the Soviet Union to act freely in the Baltics, playing its political cards in a way that was fully capable of neutralizing Latvia's defence system.

The paper will look at the major changes that affected the Latvian army on the eve of the occupation, assess them and compare how many of the plans were actually implemented by 17 June 1940, when the Soviet Union occupied Latvia.

# Israeli Approach to Manoeuvre Warfare in 1967

## WORKING GROUP 2: MILITARY HISTORY

Kristian Lindhardt  
Royal Danish Defence College

In June 1967, the Israeli Defence Forces (IDF) overcame considerable odds when they launched a pre-emptive war against their neighbouring countries.

Israel, at the time a very young and developing nation, had absorbed a large influx of new citizens and its economy was rapidly developing. This laid the foundation for a rapid expansion of the IDF. The IDF saw significant growth in men and materiel during the years from 1956 to the war in 1967. They had to balance their procurement of new materiel with their organisation and their doctrine.

The materiel procurement and its adaptation were carefully designed to overcome the terrain and the type of enemy, which the IDF was facing. However, this led to changes within the army as the Sinai Campaign in 1956 had taught the IDF that their organisation needed a higher-level troop formation to direct their battles. This led the IDF to develop the Ugdah as a fully functioning division-level troop formation that could plan and execute battles and even campaigns in war.

Their previous experiences from 1956 and the possibilities coming from the changes in the organisation and the materiel led the IDF to develop its doctrines considerably. A heavy emphasis was placed on armour and armoured formation. The IDF believed that a maneuverist approach to battle, with highly mobile formations, would be successful in the terrain and against the types of opponents they were likely to face.

During 5– 6 June 1967 the theory was put into practice as the 38 Israeli Ugdah launched its attack on the Egyptian fortifications at Abu Ageila in the Sinai Peninsula. The Ugdah was a reserve formation of the Israeli army and had not worked together with the brigades it had under command during the attack. Nevertheless, the battle had been carefully planned by the commander and the three brigades executed their individual tasks under the direction from the Ugdah with only minor adjustments in time and space. Though the three brigades were different in type, they all adhered to the same doctrine, which gave them a common understanding of how to execute their tasks.

In 1967, the IDF showed how a rapidly developing defence force can be successful when its materiel, organisation and doctrine are in balance.

## Growing Pains: Organizational, Logistical, and Doctrinal Difficulties and Challenges of Expanding the Union Army during the American Civil War

### WORKING GROUP 2: MILITARY HISTORY

Michał Mydlowski  
Unaffiliated

Just days before the secession of South Carolina, the United States Army numbered around 16,000 soldiers, NCOs and officers. Those forces were spread among military installations such as forts and outpost. Their garrison-oriented nature deemed those forces unable to participate in regular warfare as well as large-scale operations.

The start of the Civil War forced the President and US Congress to expand the armed forces. On April 15, 1861 President Lincoln called for 75,000 volunteers. Shortly after, in July, an additional 500,000 volunteers were called. This drained a relatively small pool of alumni of military academies, who were quickly assigned mostly senior officers ranks, and resulted in an influx of officers without formal training or previous military experience. Moreover, the rapid expansion of the armed forces overburdened the Army's logistics and the nation's production capabilities. With very small core of professional soldiers the Army quickly lost coherence of the regular forces and became a badly trained mass of men.

The goal of the paper is to discuss difficulties and challenges related to the expansion, faced by the United States and the United States Army during the American Civil War and methods of overcoming them. The lack of experienced officers and NCOs, shortages of even basic equipment, as well as outdated laws and military regulations unsuitable for large scale and regular war hindered US Army's operations from the beginning to the mid-period of the Civil War.

All those deficiencies became clear during the 1st Battle of Bull Run and following campaigns in Eastern and Western Theatres. While brave on the battlefields, US soldiers were poorly led, underprepared and underequipped for challenges they faced. Many of those difficulties resulted from a lack of long-term vision and strategy, as it had been anticipated that the war would be very short affair.

By employing a wide array of solutions, the US Government and its army were able to remedy those issues. By re-writing army regulations, updating laws concerning purchase of equipment and weaponry, and re-organizing auxiliary services such as the Medical Department, the US Army was able to transform from enthusiastic but ineffective armed mob into well-organized, experienced, and competently led force.

# Desertion and the Perception of War among Finnish Deserters to Sweden in World War II

## WORKING GROUP 2: MILITARY HISTORY

Moa Hanson  
Uppsala Universitet

The paper analyses how war experiences can be understood in terms of individual soldiers' choices to desert. The reasons that can drive soldiers to flee and, from the point of view of the armed forces, betray their country and their fellow countrymen can vary, not least depending on where and when in history the studied desertions took place. The term deserter has often been linked to cowardice, disloyalty, immorality, anti-social behaviour and more extreme expressions such as psychopathy, treachery and being the lowest lives in society.

In my thesis project, I am researching the Finnish deserters who fled to Sweden during World War II in order to escape the war and military service. In this presentation, I will discuss some of the results of the study, which provide corrections to existing research on Finnish deserters as well as research on desertion in general. My main focus is on the motives behind the decision to desert. The men's stated reasons to desert are found in interrogation protocols from the Swedish district magistrates as well as personal files from detention camps and from the Foreign Commission. What were the men's motives for fleeing? Was it due to a perceived more liberal view of deserters by the Swedish authorities, war trauma, ideological beliefs, tough masculinity norms or a disagreement about the aims and means of the war? Or could it be the development of the war in itself or entirely different reasons such as linguistic, economic or social affinity with Sweden? By analysing their statements in different sources and then relating them to the war in Finland in general and desertion in particular I hope to provide new knowledge about the deserters' experience of desertion itself and the effects of their reception by Swedish authorities.

## Desired SEAD Lessons: The Contested History of Israel's June 1982 Bekaa Valley Operation

### WORKING GROUP 2: MILITARY HISTORY

Roland Popp  
Military Academy at ETH Zurich, Switzerland

During the 1970s, Western observers of military affairs re-focused on the most likely future war, a confrontation with the Soviet and Warsaw Pact forces along the Central Front in Europe. As recent US experiences in Southeast Asia only had limited relevance for the imagined "next war", US (and Western European) observers instead focused on other Cold War conflicts on the periphery as laboratories of future high-intensity warfare. Arab-Israeli Wars were the preferred choice given the presence of most modern Eastern and Western weapons technology, the influence of mutual doctrinal and operational concepts, and also the fact that Israel, the pro-Western side equipped with US weaponry, always prevailed. One of the most influential military events with an impact to the present is Operation MOLE CRICKET 19 in June 1982, the successful destruction of Syria's integrated air defence system in the Lebanese Bekaa valley. It seemed to revise the previously pessimistic assessments deriving from the 1973 Yom Kippur War some of which were interpreted as having rendered both the tank and aircrafts obsolete. The lop-sided Israeli success against Syrian SAMs was therefore highly welcomed in the West given the expected difficulties NATO aircraft would encounter against Soviet air defences. The lessons of Bekaa, however, were rather specific and nearly impossible to replicate given context and circumstances, an insight hidden by unprecedented secrecy to this day. The paper will attempt to reconstruct the actual events of Bekaa and its reception by drawing on Eastern and Western intelligence source material, available US records and European attaché reports.

# Romania after the Territorial Unification: Planning for the Next War, between Expectations and Realities (1920-1940)

## WORKING GROUP 2: MILITARY HISTORY

Tudor Vişan-Miu  
Institute for Political Studies of Defence and Military History

The First World War brought the dissolution of the continental empires of Europe, thus allowing the unification between the Romanian “Old Kingdom” and the historical territories inhabited by Romanians (Transylvania, Bukovina and Bessarabia), previously under Austro- Hungarian and Russian rule, creating, for the first time in history, a state including all Romanians.

The “Greater Romania”, with a territory and population twice as big, presented a series of challenges for national defence planners:

- (1) A greater length of borders, surrounded by different political incarnations of previous neighbouring states (the USSR instead of the Russian Empire, the Kingdom of Serbs, Croats and Slovenes instead of Serbia, Hungary, now independent of the Austro-Hungarian Empire) or entirely new ones (such as Poland and Czechoslovakia), the only neighbouring state to remain the same being Bulgaria;
- (2) A second half of the population with varied cultural backgrounds and military experiences in the former imperial armies, of which an important part were ethnic minorities (comprising almost a third of the state’s population);
- (3) The development of new weapons and much costlier military technologies that will prove fundamental in deciding the superiority of an army etc.

In my presentation I plan to tackle some of the issues that defined the military planning of the Romanian government in the interwar period, with a special attention given to the efforts to adapt the national armed forces to the requirements of a different type of war. Given that, in 1940, the political leaders of Romania failed to even attempt defending the national unity through military means against revisionist aggressors (the USSR, Hungary and Bulgaria), we are bound to ask what was, at that time, the real capacity of Romania to wage war - and that were the long-term reasons for its limitation? Some the explanations that we shall discuss include the following:

- (1) Was the French-inspired Romanian military doctrine suited for the strategical needs of the Romanian Army?
- (2) How well prepared were the Romanian troops and officer corps for a new war? Was national military thinking backwards in comparison to more modern doctrines, strategies and tactics? What was the structure of the Romanian officer corps in the interwar period?
- (3) What was the level of priority given by Romanian governments to the development of the military forces? Was the military spending of interwar years below the real needs of the army?

## "Disposable Infantry" Tactics: Red Army's "Active Bayonets" (1944 - 1945) and Russian Army's "Kashniks", "Storm Z", "Storm V" (2022 - 2024)

### WORKING GROUP 2: MILITARY HISTORY

Valdis Kuzmins  
National Defence Academy of Latvia

In May 2023, Evgeny Prigozhin announced that his private military company, known as the "Wagner Company", had lost more than 20,000 killed and more than 40,000 wounded out of some 80,000 recruited fighters during about eight months of fighting in the eastern regions of Ukraine. Nearly 50 000 of these fighters were recruited prisoners who were given distinctive identification badges, where the numbers began with the letter K, hence the term "Kashniki". As early as early December 2022, the Ministry of Defence of the Russian Federation, seeing the initial success of Prigozhin's concept, decided to extrapolate the system further and further, initially creating "Storm Z" units and later refining the concept as "Storm V" units. A common feature of these units was a distinct military specialization, with simple infantry assault units being distinctly poorly trained and used as a cannon fodder.

This pragmatic but inhumane treatment of their own soldiers took the world by surprise, but it was not new. A strikingly identical development in infantry training, casualty replacement system and tactics can be identified in the Red Army during the Second World War. In 1942, the Soviets introduced the concept of Penal Companies, where soldiers and NCO served, and Penal Battalions, where commanders, later renamed officers, served. Today it is known that the number of soldiers fighting in the Penal Companies and Penal Battalions was relatively small and their real contribution on the battlefield was limited. However, it was the replacement system which, in the final phase of the war, adopted many of the basic principles of penal units. One of which was a deliberate reduction in the time and quality of training.

Moreover, several Red Army officers pointed out in their memoirs that the battlefield tactics and, consequently, the chances of infantry survival were identical in the penal units and in the infantry units.

Such striking similarities in the tactics used and effectiveness in two wars 80 years apart raise questions about the role of military history in enhancing the combat capability of modern armed forces.



# Working Group 3: Military Technology

## Working Group Chair:

Hannu Kari; Finnish National Defence University

## Co-Chairs:

Michael Dunning; Royal Military College of Canada

Kent Andersson; Swedish Defence University

Thomas Frisk; Swedish Defence University

# Medium Calibre Cannon Analysis for Canadian Army Armoured Fighting Vehicles

## WORKING GROUP 3: MILITARY TECHNOLOGY

Ian Plante-Signal  
Canadian Armed Forces

This project aims to determine whether increasing the calibre of the main armament on Canadian Army Armoured Fighting Vehicles will increase lethality and system efficiency. The analysis incorporates lethality, cost, compatibility, and commonality, using a Multi-Criteria Decision Analysis framework to determine the optimal calibre for future acquisition projects.

- Lethality assessments were conducted through simulations and penetration models to compare the effectiveness of different calibres against armoured targets.
- Cost analysis included both weapon procurement and long-term ammunition expenses.
- Compatibility focused on the integration challenges and required vehicle modifications for each calibre.
- Commonality examined the prevalence of each calibre among NATO allies to ensure interoperability and logistical efficiency.

The results indicate that the 30x173mm calibre is the optimal choice, balancing high lethality, moderate cost, and ease of integration, while also ensuring commonality among NATO allies and secure ammunition supply chains.

# A Sea of Information: The Information Domain in the Maritime Environment

## WORKING GROUP 3: MILITARY TECHNOLOGY

Isaac Nitschke  
Canadian Armed Forces

The information space has demonstrated an increasing amount of significance in the past decade. While this has mostly impacted operations for the Army and the Air Force how does the Navy operate in the information domain? This paper seeks to understand how the Navy presently operates in the information domain and how it can operate in the current and evolving information space. Currently, the information space includes social media, outreach, cooperation with civilian organizations (CIMIC), and cyber, communications, and electronics infrastructure. Presently, the Navy sees information operations primarily occurring in cyberspace and communications, but when ships “go dark,” as they often do, how do they operate? This paper will discuss how the Navy can employ social media, outreach, CIMIC, open-source intelligence, and other sensors and means to influence the information environment. The information space is an important domain where the Navy can get involved, not only can this facilitate targeting, power projection, and the development of diplomatic relations and soft power. Through these a better understanding of the Navy’s role in a changing world can be achieved.

# Climate-Military Nexus: Perspectives for Global Peace, Security and Sustainability

## WORKING GROUP 3: MILITARY TECHNOLOGY

Jens Mathiesen  
Royal Danish Defence College

Dr. Khalid Shafi,  
Institute of Strategic Studies, Research and Analysis, National Defence University, Pakistan

Climate change has impacted the state and society in a manner that scholars of security studies categorise it as an important non-traditional security threat. Armed forces are primarily trained to counter traditional threats; However, they are being adversely affected by climate change. Climate change affects the armed forces at three levels: Respondents, Military operations, and Military Emissions. First, the deployment of armed forces as respondents is increasing due to rescue, relief, and rehabilitation operations during climate- induced disasters. With the increase in the intensity and frequency of climate-related disasters, it is expected that disaster relief operations will become more frequent. The scholars even anticipate that UN peacekeeping forces will also be deployed during climate- induced operations in near future. Second, conventional military operations are also adversely affected due to climate change. In some instances, forward operating bases inundate due to floods, soldiers and tanks operate in soaring temperatures and naval ships leave harbours for deep seas to avoid tsunamis. Third, militaries account for about 5.5% of global carbon emissions. Many nations do not reckon the military emissions, nevertheless studies are being conducted for reducing the military carbon print and having green armed forces.

Floods, wildfires, rising sea levels, droughts, famine, storms, deforestation, and changing rain patterns impact weapon systems, operations, and military personals. Being a transnational issue, these impacts call for innovation in military methods across the globe so that man and machine can be better equipped for optimal performance in a changing climate. It is also argued that adopting KAP (Knowledge, Attitude and Practice) method, climate literacy amongst the military personnel can play large dividends in conflict zones. Qualitatively analysing the role of armed forces in climate-related challenges, the paper highlights avenues for sustainable military cooperation to navigate global peace and sustainability.

# Modelling Military as an Open, Socio-Technical System

## WORKING GROUP 3: MILITARY TECHNOLOGY

Juha Kai Mattila  
Aalto University

The paper proposes a model for military affairs based on an open, socio-technical system in which evolution is driven both by extrinsic and intrinsic forces. The model is essential to design the roadmaps for current military force evolution towards 2035 power applicable in that environment and sourcing their resources from the Fourth Industrial Revolution (4IR) cyber-physical products and European societies.

European militaries must build up their capabilities to deter Russian intentions and suppress their military capabilities in the worst case. The lack of 3rd generation manufacturing capability in Europe raises the cost of conventional armament. Forces have challenges recruiting motivated and competent personnel to fill the ranks of more force elements. The ongoing 4IR promises precision impact with autonomous weapons and multiplication of military effects after the digitalisation of the five domains. The caveat is the ethical use of artificial intelligence on the battlefield and the speed of transformation at the military strategic, cultural, structural, process, information, and technical levels. Defence planners need to understand how the sequence of small changes adjusted to cultural adaptation shall transform the whole military affairs to meet Russian 2nd and 3rd generation industrial capabilities.

The paper uses design research methodology to create and test a model for the military as an open, socio-technical system focusing on force generation and utilisation. The model is built on the foundations of Trist's socio-technical system theory, extended with Latour's theory of Actor-Network, and uses Mattila's evolution model for military enterprise. Then, the concept is introduced in a tactical environment updated with recent lessons from the Ukrainian theatre of war. After the design, the model is tested against future threat scenarios and lessons from previous military transformations.

The research assumes that military organisations can transform either following an evolutionary path slowly or taking a longer leap towards new capabilities and doctrines, as evidenced in previous transformations in German Blitzkrieg, U.S. Network Centric Defence, Israeli integrated, multi-layered defence, and ISIS weaponised commercial products.

The designed model illustrates more dimensions, interrelationships, and components of military affairs than any previous capability development, enterprise architecture, or force utilisation model. It helps defence planners create feasible roadmaps for transformations of military affairs, making them aware of accelerating and delaying powers within a military enterprise. The model helps to overcome the hurdles of man-machine interfaces and adaptation of cognitive armament as a companion on the battlefield.

# Forming an Analytic Framework for the Communication of the Military Utility of Technology

## WORKING GROUP 3: MILITARY TECHNOLOGY

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Against the backdrop of a deteriorating security situation in Europe, there is a need for rapidly strengthening the Swedish defence. This also means that Sweden has an increased need for research and technology development (R&D) to support the development of the Swedish Armed Forces' capabilities. The Swedish Armed Forces' R&D budget is also planned to increase in the coming period. At the same time, the Swedish Armed Forces have decided to review the process of their knowledge development. In an increasingly complex world with a society development that is becoming more and more difficult to predict, the importance of understanding how research funds can be best utilized also increases. This is an initial report in a study aimed at contributing to improved communication regarding technical forecasting within the framework of the Swedish Armed Forces capability development. Assumptions about seven central theoretical and conceptual starting points for the dialogue between consumers and producers of technical forecasts have been discussed. From these, a number of interests formulated as questions have been derived. A compilation of these questions is presented as a preliminary proposal for a framework for analysis. The framework is expected to evolve based on lessons learned in the ongoing work, with the intention of applying it in a case study.

# "Artificial Intelligence" in Military Missions – Public Opinion about a new Phenomena

## WORKING GROUP 3: MILITARY TECHNOLOGY

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Humanity is facing a new era, shaped by the expansive use of technologies based on "artificial intelligence" (AI). This new technology affects more and more activities of our society, e.g., in financial business, medicine, media, and so on. Armed forces, too, are increasingly seeing opportunities to use AI for their own purposes (Longpre et al., 2022). As suggested by Dr. Robert Johnson, this evolution has potentially far-reaching consequences: the frequency, form and outcome of operations are eventually affected, but also the very doctrines and structures of armed forces as a whole. However, it is still unclear how exactly AI will affect the future deployment of armed forces.

Some studies already consider the public opinion on the use of AI in military missions, presenting divergent attitudes. For instance, Hadlington and his colleagues find that the public acceptance of the use of AI by armed forces is high when it is related to an increase of efficiency as well as the possibility to reduce potential risks and save lives (Hadlington et al., 2024). The potentially lethal use of AI based tools encounters a much less favourable attitude. Trust in AI and in the armed forces themselves appear to be important factors influencing these opinions. Lillemäe and other contributors identify similar aspects influencing the public perception of AI based military devices. A survey conducted in the USA shows also a mixed support for military technologies based on AI (Lillemäe, 2023). A clear majority, however, speaks in favour of the future development of this kind of technology by the US Armed Forces (Morgan et al., 2020).

This presentation gives additional evidence on how people generally judge the use of AI in military operations nowadays. Is it seen more as a threat? Or should the development of AI be promoted by the armed forces? How are the answers to these questions linked to the general attitude towards AI and the armed forces? These are absolutely key questions, as the future development of armed forces must be democratically backed. The data is based on a survey conducted in January 2024 in Switzerland about security affairs and the Swiss Armed Forces.

Hadlington, L., Karanika-Murray, M., Slater, J., Binder, J., Gardner, S., Knight, S. (2024, February 25). Public perceptions of the use of artificial intelligence in Defence: a qualitative exploration. <https://doi.org/10.1007/s00146-024-01871-w>

Lillemäe, E., Talves, K. & Wagner, W. (2023, October 4). Public perception of military AI in the context of techno-optimistic society. <https://doi.org/10.1007/s00146-023-01785-z>

Longpre, S., Storm, M., & Shah, R. (2022, August 29). Lethal Autonomous Weapons Systems & Artificial Intelligence. Science policy review. <https://sciencepolicyreview.org/wp-content/uploads/securepdfs/2022/08/MITSPR-v3-191618003019.pdf>

Morgan, F.E., Boudreaux, B., Lohn, A.J., Ashby, M., Curriden, C., Klima, K., & Grossman, D. (2020). Military applications of Artificial Intelligence: Ethical Concerns in an Uncertain World. rand.org. [https://www.rand.org/content/dam/rand/pubs/research\\_reports/RR3100/RR3139-1/RAND\\_RR3139-1.pdf](https://www.rand.org/content/dam/rand/pubs/research_reports/RR3100/RR3139-1/RAND_RR3139-1.pdf)

# Military Sciences: A Critical Examination of Methodological Challenges

## WORKING GROUP 3: MILITARY TECHNOLOGY

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This paper aims to discuss some aspects regarding the nature of military sciences, considering its methodological and epistemological characteristics vis-a-vis the variety of its objects of study. The paper explores key characteristics of military sciences and its interconnection with fields like Social, Applied, and Political Sciences. By delineating the position and relationship of military sciences alongside these related disciplines, this paper aims to offer insights into the dynamic interplay between them, shedding light on how each field contributes to but also diverges in its focus and methodologies. Thus, the issue surrounding the status of military sciences as either an autonomous science or merely a domain of study prompts critical reflection on its identity and scope especially regarding the positioning of military sciences in relation to other established disciplines closely aligned with it. This question arises from observing the methodological challenges inherent in analysing the subjects of study within military sciences. This often leads to the adoption of methods from other disciplines rather than employing distinct methodologies, as typically seen in recognized scientific fields, which is fuelled by the observation of methodological challenges inherent in analysing the subjects of military sciences, particularly evident in the complex nature of warfare as a primary focus. Therefore, when considering war as a primary subject of study, albeit not the sole focus within military sciences, one encounters the methodological hurdle of analysing a phenomenon characterised by its uniqueness and non-replicability.

Moreover, beyond the study of warfare, other subjects within military sciences encounter similar methodological complexities, prompting the exploration of potential solutions. Consequently, the paper briefly explores the feasibility of either refining existing methodologies borrowed from other disciplines to better suit the unique subjects of military sciences, or the prospect of establishing a distinct methodology tailored specifically for this field, acknowledging the need for innovative approaches to address its inherent challenges. To further enrich the epistemological discourse within the realm of military sciences, a forthcoming bibliographic review is proposed. This review will meticulously scrutinise prevalent methodologies employed in military research, aiming to identify primary methodological contributions from diverse disciplines. By analysing common adjustments made to achieve a more harmonious alignment between methods and subjects, this endeavour seeks to foster a deeper understanding of the evolving methodological landscape within military sciences.



# Advanced Methodologies Applied in a Dynamic Maintenance Context

## WORKING GROUP 3: MILITARY TECHNOLOGY

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Maintaining military systems in a dynamic context presents unique challenges that require advanced methodologies to ensure the operational readiness and effectiveness of the armed forces. This article analyses and discusses advanced methodologies applied in the maintenance of military technology, highlighting their contributions to the optimization of the maintenance process in constantly evolving operational environments. Initially, we address the importance of predictive maintenance, which uses techniques such as real-time data analysis, condition monitoring and machine learning algorithms to predict failures and proactively schedule maintenance interventions. This approach minimizes downtime and costs associated with corrective maintenance, significantly increasing the availability of military systems. Additionally, we explore the application of emerging technologies, databases and the use of smart sensors integrated into military equipment. These technologies enable the continuous collection of performance and condition data, enabling a more comprehensive understanding of the state of each component and system. This not only facilitates early detection of anomalies, but also supports data-driven decision making, resulting in more efficient and accurate maintenance. The use of condition-based maintenance approaches is also discussed in this article. These methodologies consider not only the age or time of use of the equipment, but also its actual state of operation. By continuously monitoring operating conditions, it is possible to extend the life of systems, reduce unnecessary wear and tear, and plan maintenance interventions more effectively. Finally, we highlight the importance of integrating computer-aided maintenance management systems and decision support systems. The combination of these tools provides a comprehensive environment for planning, executing and analysing maintenance activities, enabling more efficient resource management and a more agile response to operational demands. In short, this article demonstrates how the adoption of advanced methodologies in the maintenance of military technology is fundamental to ensuring the operational readiness and effectiveness of the armed forces in a dynamic and constantly evolving context.



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

## Working Group Chair:

Peter Olsthoorn; Netherlands Defence Academy

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## The Evolution of South African Operational Art: From an African Way of War to Doctrine

### WORKING GROUP 4: MILITARY LEADERSHIP, COMMAND AND CONTROL, AND BASIC COMPETENCES

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The paper provides an exposition of the nature of the South African way of war and the evolution of the operational doctrine of the South African military. The underlying argument is that the South African way of war was profoundly influenced by the contextual realities within which it unfolded. This specifically refers to making of the South African military as a product of British regimentalism, Afrikaner pragmatism, and African irregularity. Although there is a strong irregular undercurrent in the South African operational doctrine, the doctrine was largely the product of the conventional high-intensity conflicts of the Cold War in Angola; raising questions as to the utility thereof for the current African strategic realities that is predominantly irregular and unconventional in nature and alignment with the current institutional South African military context. Whereas the doctrine was institutionalised primarily by the regimentally- and conventionally-minded officers of the SADF, it is the non- statutory and unconventionally-minded officers of the SANDF that is now expected to operationalise the doctrine.

# Investigation of Language Communication Efficiency for International Military Operations

## WORKING GROUP 4: MILITARY LEADERSHIP, COMMAND AND CONTROL, AND BASIC COMPETENCES

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Effective communication is a critical component of successful military operations. Within a coalition environment, military personnel with multiple nationalities and linguistic backgrounds will typically communicate in a specific common language. In a NATO context, English is the language of operations despite 28 of the 32 member countries being non-English speaking, resulting in frequent communication between non-native and native English speakers. Canada, as a country with both English and French as official languages, is uniquely positioned to support the study of native and non-native hearing and comprehension.

From a military human factors' perspective, it is known that accented speech affects listening effort and intelligibility, introducing a cognitive workload comparable to background noise or reverberations. Drawing from methodology and a military communication speech recordings database developed by the NATO Research Task Group (RTG) Human Factors and Medicine (HFM) 285, this study sought to determine whether exposure to accented speech would result in adaptation, enabling improved listening accuracy. Participants were subjected to speech recordings with accented military communication phrases. They were then required to conduct a listening accuracy task of either a control protocol consisting of recordings from native English speakers or an experimental protocol consisting of non-native accented speech. The findings indicate that for both native Anglophone and non-native Francophone military members, exposure to accented speech resulted in improved listening accuracy. These results provide indicative support to the recommendation of employing accented speech as a method of language training. The data collected will support NATO development of language assessment standards and influence advice to English education programs of NATO member nations.

# Developing an Integrative Model for Observational Measurement of Attributes of Mission Command, and of the Recognition Primed Decision-Making Model

## WORKING GROUP 4: MILITARY LEADERSHIP, COMMAND AND CONTROL, AND BASIC COMPETENCES

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The field of mission command (MC) is widely regarded as the ideal leadership philosophy in Western militaries. However, there is a need for a shared, definitive concept of MC with clear attributes. The lack of established traits makes empirical research on mission command difficult. To resolve this issue, I suggest that a model integrating naturalistic decision-making models (NDM), and MC will simplify objective measurement of MC. This paper aims at developing a model measuring behaviours associated with MC and recognition-primed decision making (RPD) in observational studies. The proposed model is designed to evaluate decision-making processes in current military operations, providing valuable insights for doctrinal development and force training

Common attributes associated with mission command such as trust or situational awareness are challenging to quantify through objective observations. Previous research shows a correlation between the use of MC and NDMs. In the proposed model RPD is selected as the primary decision-making model due to its well-established framework and continued relevance in explaining real-life decision-making under stress.

Given the pre-established conceptualization of RPD, the systematization of the literature is less complex than for MC. The data surrounding the RPD section of the model will be derived from specific literature, journal-articles on RPD, case studies, and journal-articles on decision making under stress.

Analysis of MC is more complex, due to the lack of standardization of MC attributes, because of this data gathered from multiple sources is needed. The literature gathered is classified into doctrinal, historical and contemporary perspectives. Each category will be analysed to consolidate specific attributes representing the concept of MC. Each category analysis will then be compared to develop consolidated attributes of MC. The consolidated attributes of MC will, through integrative analysis, be joined together with the attributes representing RPD, creating a model suitable for the observational measurement of MC/RPD.

This paper aims, at developing a model that can be used for further measurement of specific MC behaviour by leaders and subordinates, facilitating research on MC implementation in armed forces. The model also supports further research on contextual effectiveness of MC, which can contribute to allocation of military leaders in training and expanding of organizations, by showing when a leader chooses to implement MC strategies, and when detailed command is the leadership strategy of choice.

# Surveying Conscripts' Satisfaction Regarding Changes in Leave Arrangements During the Covid-19 Pandemic

## WORKING GROUP 4: MILITARY LEADERSHIP, COMMAND AND CONTROL, AND BASIC COMPETENCES

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The Finnish Defence Forces introduced changes in leave arrangements due to the global COVID-19 pandemic in 2020. This study tries to understand the satisfaction of conscripts and their feedback regarding the changes. The objective is to provide ideas for improvement in military service so that conscripts may perform it as well as possible even in exceptional circumstances. The study took the form of a questionnaire that was answered by the conscripts of the Guard Jaeger Regiment in Helsinki, Finland. Both quantitative and qualitative methods were utilised, as the questionnaire included Likert scale questions with voluntary textual justifications. Results indicate that the model (four weeks of service followed by two weeks of leave) used during the pandemic time is not so preferred, since it was chosen the least often. On the other hand, the most preferred model seems to be 13+8. However, utilising this model more widely in practice might be challenging to conscripts' training as there are quite a lot of leave days in relation to service. Results also indicate that conscripts' opinions are quite divided because equal numbers showed both satisfaction and dissatisfaction to the changes. However, the currently used leave arrangement seems to be the least popular among the studied conscripts, and most prefer a model where the length of service is two weeks followed by one-week holiday. In addition, a comparison between the feedback of the crew and leaders was conducted which showed minimal differences between the opinions of the two groups. The conclusion is that there exists no consensus among the conscripts regarding the changes and that the crew and leaders hold similar opinions regarding the changes.

## Grey Zones and Modern Wars: Ramping up for New Challenges

### WORKING GROUP 4: MILITARY LEADERSHIP, COMMAND AND CONTROL, AND BASIC COMPETENCES

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This paper asks how small states should “ramp up” to address challenges short of war. We apply insights from the War Studies Working Group’s research on Grey Zones to frame “ramping up” as a design problem. Military leaders operate in an ecosystem with police, paramilitary, and intelligence professionals, sharing the challenge of preserving the confidence of government and society.

Grey Zones are spaces between positive peace and unequivocal war. Problems of regular and irregular war, their intersection in hybrid war, and the imbalance of asymmetrical conflict are compounded by the uncertainty of the Grey Zone below the threshold of war. We frame new challenges in two steps.

First, we articulate Grey Zone problems in a tabular summary of more than 60 post-2008 case examples in six categories, which confound the silos between security services and government responsibilities. Electoral interference, intimidation of officials, infiltration through market operations, lawfare, foreign ownership and control, weaponized refugee flows, deep fakes and communications disruptions are just some examples from the tabular summary of scalable threats requiring imaginative multi-sectoral solutions. While we naturally think of Russia and China as sources of these threats, they originate with a wide variety of states, including our allies.

Second, to assess emerging threats and “ramp up” responses, we present four continua along which Grey Zone threats materialize: violent-nonviolent, attributable-unattributable, regular-irregular forces, and minimal-maximal impact. These continua provide a lexicon for describing risk and moving towards quantifying it to prioritize responses.

Finally, we suggest a design approach to ramping up along each continuum that defines threats in the Grey Zone. The cases, categories, and continua show that military, police, and intelligence assets need civilian public and private sector support to respond to many Grey Zone problems.



# Relationship-Oriented Leadership in High-Risk Professions: Enhancing Well-being and Performance

## WORKING GROUP 4: MILITARY LEADERSHIP, COMMAND AND CONTROL, AND BASIC COMPETENCES

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Emergency and defence services, including the military, firefighters, police, and emergency medical personnel, face significant stressors ranging from high-risk tasks to broader organizational and geopolitical challenges. These roles, set within a complex organizational framework, encounter unpredictable geopolitical situations that increase stress and mental health challenges. Supporting the mental health of these professionals is crucial, as it improves individual and team well-being and organizational metrics like performance, absenteeism, retention, and resilience, ultimately enhancing mission success. Leadership is crucial in maintaining and supporting mental health and well-being at individual and team levels. Leaders influence through social-cognitive, motivational, affective, relational, and identification-related mechanisms. However, resilience development is shaped not only by leader-follower interactions but by complex, reciprocal interactions among leaders, followers, peers, and the border context of the workplace's climate and culture. Given these complexities, a holistic and relational perspective is essential. One possible overarching framework that can encapsulate these diverse and reciprocal interactions is Relational Leadership Theory (RLT). It offers a framework for understanding the multifaceted impact of leadership on mental health, well-being, and resilience. RLT captures diverse interactions by focusing on relationships rather than hierarchical command structures and emphasizes the importance of relationships and collective responsibility in leadership. Research indicates that social connections, strong peer bonds, and group identity reduce stress and improve resilience. Several literature reviews have shown that relationship-oriented leadership styles such as transformational, authentic, participative, or servant leadership positively affect followers' well-being and team performance. These styles, we assume, are especially crucial in high-risk professionals in the emergency and defence sectors where cumulative stress is a significant concern.

This study aims to understand the effects of relationship-oriented leadership on the well-being and performance of high-risk professionals in the emergency and defence sectors by conducting a systematic literature review. The focus is on leadership styles emphasizing relationships, such as leader-follower and peer-to-peer interactions. The research aims first to provide a comprehensive framework integrating these styles and then to review them at team and individual levels.

Currently in the planning stage, this systematic literature review will analyse qualitative and quantitative peer-reviewed articles. It will cover relational leadership theory, including transformational, transactional, authentic leadership, leader-member exchange theory, and social identity theory of leadership, to explore their impact on individual well-being and team outcomes like cohesion and performance. The review underlines the importance of leadership that transcends traditional hierarchy and emphasizes the social context to enhance team and individual performance and well-being.

# Civilian Institutions, Military Relations: Ukrainian Institutions of Higher Education in Total War

## WORKING GROUP 4: MILITARY LEADERSHIP, COMMAND AND CONTROL, AND BASIC COMPETENCES

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During the 2022 escalation of the Russian-Ukrainian war, Ukrainian civilian institutions faced a set of unique challenges: to continue operating under volatile conditions, to ensure the safety and security of their members, and to support their country's armed forces. This paper examines the operation of Ukrainian higher education institutions (HEIs) from this point of view, based on anthropological fieldwork conducted in 2023-2024 in Ukraine. Even though no civilian institution had been prepared for all-out war, Ukrainian HEIs operated like logistical hubs, receiving refugees in student housing, collecting both civilian and military-directed donations, and providing direct support to the army in the form of food, shelter, and materiel such as camouflage nets, all the while maintaining and continuing their activities as educational institutions. This paper provides an overview of the support Ukrainian HEIs provided, and examines the differences in civilian support dependent on proximity to the fighting, timeline of the war, and pre-escalation entanglement with the military. It points out that the few institutions who were in any way prepared for war had faculty members who served in the Ukrainian Armed Forces after 2014. However, after the escalation every university had faculty members and students in the service, and endeavoured both to formally recognize them and to support their efforts, as well as to support students whose legal guardians were enlisted. The paper discusses more and less successful ways that universities organized their donation drives and other volunteering activities. Finally, it notes the impact universities make in providing teaching for military officers, talking about the role of the post-Soviet "military department" which still existed, at least on paper, in many universities, as well as its changing role after the 2022 escalation.

# Implementation of Measures During an Epidemiological High-Risk Situation in a Militia Formation of the Swiss Armed Forces and their Consequences

## WORKING GROUP 4: MILITARY LEADERSHIP, COMMAND AND CONTROL, AND BASIC COMPETENCES

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### Introduction:

This cross-sectional study examines the effectiveness of measures enacted by the army command and the responsible battalion doctors in this high-risk setting of an annual refresher course of 4 weeks. The intention was to minimize the spread of the SARS-CoV-2 virus in a high-risk setting.

### Materials and Methods:

Retrospective analysis from 16th August to 10th September 2021 and from 22th May to 16th June of 2023. All soldiers underwent an entry and exit health check with a questionnaire.

Questions relating to weekend leave and overall medical performance were asked again two years later. Strict health measures were established during the course in 2021, and regular testing was performed. Equivalence testing was performed to investigate the measures taken between our army population and the age-matched Swiss population during the investigated period.

### Results:

Out of 482 healthy Swiss male soldiers, aged 24.6 on average, 58% were vaccinated, with 86% having received two mRNA vaccine doses. Only two soldiers tested positive for COVID-19 at entry, none during the course. Statistical Equivalence was observed in COVID-19 positivity rates compared to the age-matched Swiss population. Despite most soldiers opposing the weekend leave ban, their views remained largely unchanged two years later, with 71% expressing satisfaction with the 2021 health measures and medical performance.

### Conclusions:

Despite the delta variant's prevalence and a 58% vaccination rate among soldiers, no direct transmission occurred. Strict health measures and frequent testing effectively minimized disease spread, achieving remarkable statistical equivalence. The weekend leave ban warrants careful consideration in this context.

# Effectiveness of a Positive Psychology Intervention on Resilience Enhancement Among Cadets: A Longitudinal Study

## WORKING GROUP 4: MILITARY LEADERSHIP, COMMAND AND CONTROL, AND BASIC COMPETENCES

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This study evaluates the efficacy of a positive psychology intervention aimed at enhancing resilience among cadets through the implementation of the S.P.A.C.E. framework, a five-step strategy integrating character strengths and mindfulness practices. Preceded by assessments at pre-test, post-test, and a one-month follow-up, the intervention comprised a 90-minute session designed to facilitate the interruption of negative thought and emotional responses, while promoting the utilization of mindfulness practices and character strengths. Results indicated significant increases in cadets' resilience measures following the intervention, with sustained effects observed at the one-month follow-up. Additionally, cadets reported decreased reactions to stress at the one-month mark. These findings underscore the potential of the S.P.A.C.E. intervention in bolstering resilience and mitigating stress among cadets.

Implications of these results for resilience training in military contexts are discussed, along with avenues for future research, including the exploration of potential moderators and mediators of intervention effects. Conclusions: The findings from this study align with previous research demonstrating the effectiveness of character strengths and mindfulness-based interventions in improving psychological well-being and resilience. However, it is essential to exercise caution in interpreting these results due to limited studies and heterogeneity across military interventions. Further research is warranted to strengthen the evidence base and ascertain the generalizability of such interventions. Impact: This study contributes to the growing body of evidence supporting the use of character strengths and mindfulness-based interventions to enhance resilience and psychological well-being among military populations. The S.P.A.C.E. framework offers a novel approach that may positively impact individuals' well-being, resilience, self-esteem, and self-efficacy, while potentially reducing symptoms of mental distress. Future research should aim to replicate these findings in various populations. Efforts to diversify participant samples will enhance the generalizability and applicability of the intervention across diverse socio-demographic backgrounds.

# Multinational Mission Command: Prospects and Challenges in a NATO Context

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

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In December 2022, NATO elevated mission commands into the overarching command philosophy within the alliance. It did so in the newest version of its keystone doctrine, AJP-01 Allied Joint Doctrine. However, while defining concepts in written doctrine is essential for interoperability, it will not necessarily change how military forces operate. Instead, this new approach raises questions on how NATO members will embrace mission command as a comprehensive practice. The problems of implementing and practising mission command have been studied extensively in national contexts, and many implementation challenges are thus well-known. However, the 'how' of mission command in multinational contexts is underexplored. Based on 33 interviews with former and contemporary NATO commanders in the land domain, we ask: what are the prospects for and challenges of mission command in a NATO context?

This article takes AJP-01 and its description of mission command as its point of departure; based on our interview material, we will analyse the challenges of mission command in a multinational context.

# Effect of PTSD on Ukrainian Military Leadership in the Times of War

## WORKING GROUP 4: MILITARY LEADERSHIP, COMMAND AND CONTROL, AND BASIC COMPETENCES

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Post-traumatic stress disorder (PTSD) is a psychological condition that may arise in individuals who have been exposed to or have witnessed a traumatic incident. Among various triggers, combat exposure stands as one of the most common causes of PTSD. While extensive research has explored the impact of PTSD on individuals, further investigation is necessary to understand its effects on military leaders, particularly in times of war. This paper aims to look into the prevalent ramifications of PTSD among military leaders in the Ukrainian army by analysing and synthesizing data from Ukrainian sources.

The influence of PTSD on leadership can be significant, especially amidst the ongoing war in Ukraine. Numerous ways in which PTSD can remarkably affect leadership are anticipated to arise from sources focusing on Ukrainian military leadership:

- (1) **Impaired Decision-Making:** PTSD can hinder a leader's capacity to make sound decisions by causing symptoms like hypervigilance, flashbacks, and intrusive thoughts, thereby hindering clear and rational decision-making processes.
- (2) **Emotional Dysregulation:** Leaders struggling with PTSD may encounter difficulties in regulating emotions, leading to intense mood swings, anger outbursts, or emotional detachment. This emotional turbulence can undermine a leader's ability to maintain composure, handle stress, and instil confidence in their team.
- (3) **Stress Management Challenges:** PTSD often entails heightened levels of stress and anxiety, exacerbating the challenge of managing stress, particularly in high-pressure leadership roles. Leaders with PTSD may struggle to cope with stressors, potentially resulting in burnout or ineffective management of demanding situations.
- (4) **Reduced Focus and Concentration:** Symptoms such as intrusive thoughts and hyperarousal associated with PTSD can disrupt a leader's focus and concentration, making it troublesome to prioritize tasks, delegate responsibilities, and maintain organizational efficiency.
- (5) **Avoidance Behaviour:** Individuals with PTSD may employ avoidance behaviours to cope with trauma triggers, extending this avoidance to their leadership duties. This may be displayed as procrastination, neglect of responsibilities, or reluctance to confront challenging issues.
- (6) **Loss of Confidence and Self-Efficacy:** PTSD can degrade a leader's confidence in their abilities and judgment, fostering self-doubt and diminishing self-efficacy. Consequently, this loss of confidence may diminish a leader's capacity to inspire and motivate others effectively.

# Negotiation as a Key Enabler in Multi-Domain Operations

## WORKING GROUP 4: MILITARY LEADERSHIP, COMMAND AND CONTROL, AND BASIC COMPETENCES

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After a period of decades without major threats, the world senses a rise in the risk of major conflicts potentially affecting the western hemisphere. It is accepted that history repeats itself, but never exactly in the same way, and current world conflicts are quite different from past ones, within a paradigm of unforeseen complexity, which demands new responses and defence concepts. Multi-Domain Operations (MDO) is the latest North Atlantic Treaty Organization concept to tackle the complexity inherent to the present-day defence paradigm and future threats potentially impacting the hundreds of millions of people the Alliance tries to protect, together with the democratic and humanistic values that characterizes the western society. Underneath and sustaining MDO, however, will be a fabric made of systems, and most likely arranged within a Systems-of-Systems architecture providing emergent capabilities which no isolated system possesses. Conversely to designed systems in varying levels of integration and complication, Systems-of-Systems are not usually designed, but instead they are architected or made of existing systems which keep their own managerial independence and the governance of the constituent systems, aka operational independence of constituent systems, evolving independently of any centralized design. A System-of-Systems may have multiple levels of stakeholders with possibly competing interests; possibly contradictory, objectives and purpose; sometimes having different, operational priorities with no clear escalation routes; having multiple lifecycles with elements being implemented asynchronously; and multiple owners making independent resourcing decisions. This idea suggests that trust and agreements mechanisms shall be the essence behind a lasting or just periodic participation of a potential dynamic set of systems arranged as Systems-of-Systems. However, for such trust and agreement mechanisms to be effective some dynamic process shall be at play – a negotiation process. This paper aka sub-systems, is simultaneously the strongest and weakest link MDO will rely on. The methodological approach followed in this paper is based on systems thinking approaches to problem solving, and the objective of this paper is to provide insight into enabling factors, without whom Multi-Domain Operations may fall short of expectations, in a world that is perceived as dangerously advancing toward a new age of major conflicts.

# Officer Cadet Education and Training in the British Indian Army during WW2: Lessons from Combat Arms Curriculum and Syllabus Change

## WORKING GROUP 4: MILITARY LEADERSHIP, COMMAND AND CONTROL, AND BASIC COMPETENCES

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During World War 2, the British Indian Army 'scaled up' from around 200,000 troops to over 2 million in uniform. The pre-war Officer Corps of 3000 British and 500 Indian Officers expanded to 30,000+ British and 14,000 Indian Officers. Many of these would serve and lead in the strong million 14th Army that 'learned lessons' that turned defeat into victory in the Burma Campaign against the Japanese. This Commonwealth Army consisted of soldiers from 20 nations and many faiths speaking 100 languages.

Over the same period, the British Indian Army transformed from an imperial police force to a professional army focused on new grounds, new enemies, and implementing new technology and tactics capable of combined arms operations. 'Ensuring quality' was not easy, and in the early stages, compromises were very evident in training and during many operations.

This presentation will note existing research on the difference in time used to educate those who would become "Temporary Gentlemen/Emergency Commissioned Officers". Nevertheless, the intended focus is a more detailed examination of sources that explore curricula/syllabi and the extent to which they changed over time. The aim is to identify variations in the proportion of time spent on certain subjects more closely. The analysis will be organised around subjects such as Languages, Military History, Land Tactics, and Leadership, covering only the Combat Arms (Infantry and Cavalry/Armoured) pathways.



# Do Drones Dream of Transparent Battlefields? Dealing with Past and Future Alternatives to the Tactical Crisis in Contemporary Warfare.

## WORKING GROUP 4: MILITARY LEADERSHIP, COMMAND AND CONTROL, AND BASIC COMPETENCES

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The idea of the presentation to reflect on the tactical crisis installed on the contemporary battlefield, motivated essentially by two reasons: the first, the growing disconnection of military force in Western countries with their political apparatuses, and the second, the change in tactical dimensions and operational, with drones and systems that allow viewing of combat in real time. Drawing on the observation of recent conflicts such as the war in Nagorno-Karabakh, Ukraine and Gaza Strip, it is clear that military forces with a high degree of tactical proficiency equipped with advanced systems are not capable of producing strategic political successes on their own. Considering the conjunction of these reasons, the proposal is to offer a possible path to solutions to this crisis, through a systemic approach, in which past and future technologies are combined in order to try to see the character of combat in the 21st century. Thus, to overcome one of the pillars of the impasse, the combination and integration between tanks, missiles and drones provides a clue on this path, at the same time that, without a strong political appeal, it will not be possible to equip a military force, given the high cost of these equipment, which leads us to the other pillar of the impasse, which is seeking a reconnection between military force and political leadership. This can be motivated by campaigns to raise public awareness about threats and the purpose of maintaining armed forces capable of dealing with the challenges ahead. In this way, such possible avenues appear before us so that a force design can be produced in line with what a country can prepare, equip and sustain. Although this may represent a high political cost, with profound changes in society, it must be remembered that the cost of military failure is even greater, and therefore, investing in ways to deal with this crisis becomes a necessity for Western powers and of countries whose doctrines end up being strongly influenced by them.



# Working Group 5: Military Law and Ethics

Working Group Chair:

Olavi Jänes; Baltic Defence College

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# International Law Applicable to the Protection of Submarine Cables: The National Security Threat That Nobody Talks About

## WORKING GROUP 5: MILITARY LAW AND ETHICS

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The author proposes to make a presentation on “International law applicable to the protection of submarine cables: the national security threat that nobody talks about”.

The author proposes to explain the international law framework applicable to the protection and operation of submarine cables. This issue came to light following the recent instability in the Middle East and the Houthi militia’s attacks in the red sea which resulted in the damage of 4 submarine cables.

Submarine cables are one of the most critical and strategic infrastructure that no one talks about. In an article published in 2020, a US congressman noted:

“In fact, 98 percent of all international voice, data, video and internet traffic is through these submarine cables. Simply put, they are not only the backbone of the international telecommunications system but are absolutely fundamental to both our international financial system and the world’s global infrastructure at large.

The magnitude of the potential impact is seen in the United States’ Clearing House Interbank Payments System processes, which amount to over \$1 trillion per day in all manner of commodity exchanges, securities and investments. Therefore, when it comes to these undersea cables, any tampering or destruction at the hands of either a malign state actor or terrorist organization could cause billions of dollars’ worth of economic damage in a short amount of time.

History has taught us the negative outcomes of vulnerable undersea cables. For example, during World War I, the British successfully destroyed a majority of Germany’s undersea cables, thus extensively limiting them in all manner of communications. The world witnessed another incident in 1959 when the Soviet Union cut cables off the coast of eastern Canada. In the present day, there is a real concern that malign actors can send damaging shock waves through the U.S. economy by destroying this vital infrastructure.”

The audience will benefit from the author’s presentation given that he currently represents Yemen’s National Telecommunication Company TeleYemen (that is controlled by the internationally recognised and legitimate government of Yemen) in its efforts to regain control of the submarine cables that pass-through Yemen, and which are currently illegally controlled by the Houthi militia.

# The Role and the Legal Status of the Military Intelligence in Combatting Hybrid Threats

## WORKING GROUP 5: MILITARY LAW AND ETHICS

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The task to know the enemy has been part on the military tactics for thousands of years. The information how many troops your enemy has is not only relevant, but the knowledge what are the capabilities and intentions of the hostile society. The knowledge is vital to prepare military counteractions and collect information to confront possible internal security threats, which usually falls into the area of responsibility of civilian security services.

The clear separation between military and civilian powers has been a core of the democratic governments for the decades. For example, the role of the military intelligence in Estonia has been relatively limited, when it comes to the counter-intelligence and security intelligence powers within the state during the peacetime. In 2007, the so called “spy scandal” took place in Estonia, according to what Estonian military intelligence allegedly collected counter- intelligence information about the civilian staff of the Ministry of Defence of Estonia. The investigation found no guilt, but stressed that the question about the role of the Estonian Defence Forces operating in the civilian environment, inter alia military intelligence, is related to the fundamental principles of the Constitution.

Civilian supervision does not necessarily mean total restriction to collect information about the civilians, residents of the state, if this is related to the main task of the defence forces to prepare to defend the nation by military means. Taking into consideration that there is conscript based military service in Baltics and Scandinavia, which means reserve army system, then connection between military and civilian aspects are more intervened than in other NATO member states.

It raises questions that need to be answered:

- (1) How to find balance between abovementioned legal principles of separation of the military and civilian powers to combat hybrid threats?
- (2) How military intelligence service can be effective and flexible following the principle of rule of law and how to keep troops safe at home?
- (3) Is the only answer even more close cooperation between civilian and military security services or should military intelligence widen the scope of activities into the civilian sector?

# Justifying and Explaining Changes in the Jus Ad Bellum: A Constructive Interpretative Approach

## WORKING GROUP 5: MILITARY LAW AND ETHICS

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The existence and content of the legal doctrine of humanitarian intervention is veiled by mystique. While most scholars reject that such doctrine can, and indeed should, coexist alongside the broad prohibition on the use of force in Article 2 and 4 of the United Nations Charter, States occasionally engage in non-UN authorized military campaigns to protect civilians from mass atrocity crimes. This article puts forward a new constructive 'interpretative approach' to justify and explain changes in the exclusive field of jus ad bellum. It is predicated on the assumption that the legal forms regulating jus ad bellum is a unique area of international law where *lex lata* is intimately intertwined with *lex ferenda*. The constructive interpretative approach is comprised of a combination of John Tasioulas's interpretative account to customary law ascertainment, Jean d'Aspremont's identification of the third- element of custom, and Ronald Dworkin's integrated work on the political legitimacy of States and the legitimacy of the international legal order. The constructive interpretative approach originates in the core interpretative value of dignity and guides a solution to the choice made available in the interpretation of customary law 'data' (State practice and *opinio juris*) on the basis of a pragmatic morality embedded in the United Nations Charter. By applying the constructive interpretative approach to the customary law data generated as a result of the non-UN authorized missile strikes against Syria's chemical weapons installations in 2018, the article elucidates how the approach may be mobilized to explain why a limited legal right to use military force for the specific humanitarian objective of stopping further use of chemical weapons is crystalizing in customary law.

# Terrorism in Armed Conflicts: A Breach of Norms or an Element of Strategic Culture as per Example of the Russian Federation and Soviet Union

## WORKING GROUP 5: MILITARY LAW AND ETHICS

Maria Juczevska

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Ongoing military conflicts require the re-evaluation of existing doctrine and ways of warfare. Preliminary observations from the war in Ukraine beget questions regarding the type of war we may face in the near future. Armed forces of the Russian Federation in Ukraine display a clear tendency to attack predominantly civilian targets and civilians in violation of the public international law. The harassment and destruction of civilian population seem to bear the hallmarks of terrorism.

Since 2014, a wide range of measures inconsistent with the law of nations has been used by the Russian Federation in Ukraine even though the concept of war crimes was defined in that law over 75 years ago, with the Soviet Union being one of the parties establishing the definitions. At present, neither the Russian authorities nor armed forces take those rules into account when shaping their military tactics and strategy. Therefore, the NATO member states need to fine-tune their warfighting concepts to the situation of conflict in which the regulations of the public international law appear to be purposefully disregarded.

The aim of this presentation is to analyse whether Russia's use of terrorism in armed conflicts is a breach of norms or a well-established element of its strategic culture. The notions of terror and terrorism are examined in the context of the ongoing conflict in Ukraine. The definitions of strategic culture and counterintelligence state are introduced to build the framework of reference for the analysis. Comparison between the conflict in Ukraine and the ethnic conflicts in the Russian Federation and Soviet Union in the past is made to show the continuity of means and methods used by the Russian state against its internal and external enemies.

Review of literature and the internet sources reporting on the conflict was conducted to analyse and synthesise information leading to the conclusions concerning the Russia's use of terrorism.

The most important point is that terrorism is an essential element of the strategic culture of Russian Federation. It is a tool employed to implement the short- and long-term domestic and foreign policy goals. Its use by the Russian military forces should be expected to continue, as terrorism is intimately linked to the nature of the Russian state as a counterintelligence state. The conclusion of this presentation shall discuss broader security implications of this state of affairs for the NATO member states and international organisations.

# Unrecognized States as a Challenge for International Security

## WORKING GROUP 5: MILITARY LAW AND ETHICS

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Around the world there are countries and states that have declared independence but are not recognized by other countries. These political entities are referred by various names: "de facto states", "unrecognized states", "para-states", "pseudo-states" and "quasi-states". Since their existence is not backed by international recognition, they must be sustained by something else. The content of the presentation, which is based on the analysis of the literature on the subject and statistical reports, proves that the tendency of these countries is weak economy and weak state structures. It seems that the main reasons why these states have not collapsed is that their governments have managed to build internal support from the local population through propaganda and identity building, and to direct a disproportionately large part of their meagre resources to the military and defence, and also enjoy the support of a strong patron.

Research goal is defining the subjectivity of unrecognized states, their typology and considering if they are a threat to international security. None of these circumstances, however, will ensure the continued existence of quasi-states unless they achieve international recognition or unite with their welfare state. Which is unlikely in most cases - they will eventually be reabsorbed into the home state or agree to an autonomous status in the home state in a federal arrangement. The latter result is the preferred option of the international community. However, it should be remembered that unrecognized states pose a threat to local and international security, and on the other hand, they are a challenge for the international community, especially in the context of violations of human rights and the principles of statehood.



# Working Group 6: Security and Defence Policy Strategy

## Working Group Chairs:

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## Co-chairs:

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# Force Multipliers: Providing Quality Advice to Defence and Security Stakeholders

## WORKING GROUP 6: SECURITY AND DEFENCE POLICY STRATEGY

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On the heels of the COVID-19 pandemic, countless organizations saw an unprecedented reduction in their workforce, a mass departure that has been coined the 'Great Resignation.' (Klotz A. 2021) In the US alone, "...47 million people quit in 2021, and 50 million more in 2022, according to data from the US Bureau of Labour Statistics (BLS)." (Morgan, K. 2023) In Canada, the Canadian Armed Forces (CAF) is experiencing retention challenges like never before, with the Chief of the Defence Staff (CDS) predicting that problems "...are going to get worse before they get better." (CBC, 2022) This is grim news for Canada, which recently published its Defence Policy Update (DPU) that re-affirms its commitment to support domestic and global security and announces a substantial investment in defence spending. [Government of Canada, 2024] There is little doubt that the loss of experience makes it extremely difficult for decision- and policy-makers to navigate the complexities of today's global Defence and Security environment, let alone chart a vision for a better tomorrow.

Over the years, civilian companies have learned to harness the knowledge and experience of those who served in Defence and Security. One such Canadian company is Space Strategies Consulting Ltd (SSCL), which has developed "a Pan-Domain approach that moves beyond conventional military- and security-focused arenas to include consideration of all elements of National Security that are being impacted by continued rapidly evolving global environments." (SSCL, n.d) SSCL has earned a distinguished reputation for leading-edge policy and concept research through a powerful methodology of gathering and processing information that ensures the highest quality of advice for their clientele. In keeping with the theme of this year's conference, this presentation offers insight into the fine-tuned SSCL process, which may serve as a model for "Scaling Up, Learning Lessons, Ensuring Quality."

Klotz A. (2021, May 30). The Covid Vaccine Means a Return to Work and a Wave of Resignations. NBCNews.com. <https://www.nbcnews.com/think/opinion/covid-vaccine-means-return-work-wave-resignations-ncna1269018>

Morgan, K. (2023, August 2). The Great Resignation is 'over'. BBC News. <https://www.bbc.com/worklife/article/20230731-the-great-resignation-is-over-what-does-that-mean>

Brewster, M., & Raycraft, R. (2022, October 6). Military personnel shortage will get worse before it gets better, top soldier says. CBC news. <https://www.cbc.ca/news/politics/eyre-shortage-directive-1.6608107>

Government of Canada. (2024). Our North, Strong and Free: A renewed Vision for Canada's Defence. <https://www.canada.ca/content/dam/dnd-mdn/documents/corporate/reports-publications/2024/north-strong-free-2024-v2.pdf>

Dupis, A. (n.d.). SSCL Solutions. <https://www.sscl.solutions/>

# Geopolitical Futures and Force Structure Planning

## WORKING GROUP 6: SECURITY AND DEFENCE POLICY STRATEGY

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Our presentation touches on two aspects of the conference theme. The first is consideration of preliminary observations from the recent conflicts at a geopolitical level. Here it is noted that uncertainty has been considered a predominant characteristic of the future security environment since the 1990s. This makes it impossible to predict in detail what it will yield. Rather, understanding the underlying factors behind the rising international geopolitical tensions and fragmentation and preparing for their potential implications are crucial for navigating the evolving global landscape. In 2017, the Canadian Army completed three volumes of a Future Army Process. Using methods of environmental scanning, the publications hypothesized four alternative futures: High-Octane “Green” World (HOGW), Global Quagmire (GQ), Materialism Gone Mad (MGM), and Recyclable Society (RS). The trend of a fragmenting geopolitical situation from 2017 to 2024 matches some trends indicative of the GQ scenario, which provides the context for a discussion of likely operational and tactical developments.

At these more specific levels, military history and past observations on force structures may be helpful in structuring forces able to adapt to the evolving geopolitical situation. It is reasonably likely that capabilities to conduct both high intensity conflict, such as we currently see in south-eastern Ukraine, and to intervene in medium and low intensity scenarios, such as the urban conflict in the Gaza strip, may be needed. This requirement for multiple specializations reflects aspects some of the theoretical proposals on military force structure of the last three decades, such as U.S. Marine Corps General (retired) Charles Krulak 1990s Three Block War theory. In addition, while the first year of the war in Ukraine illustrated the continued relevance of various complex and expensive (sometimes called “exquisite”) weapons systems, that conflict has also illustrated that older versions of such systems are highly vulnerable to inexpensive mass-produced systems such as drones. Such inexpensive threats are likely to be ubiquitous in both low intensity and high intensity conflict scenarios.

Weaknesses of “exquisite” weapons systems against such threats have also been warned about for decades, such as in Mary Kaldor’s “baroque arsenal” argument of the early 1980s. Technological developments, such as active protection systems, modern versions of Self-Propelled Anti-Aircraft Guns (SPAAGs), and electronic warfare systems are likely to cause “exquisite” and inexpensive mass-produced systems to co-exist on battlefields, but may require extensive changes in doctrine, force structure, and defence industrial bases.

## Increased Tensions in the Indo-Pacific. Strategic Implications for the Danish-Indian Partnership

### WORKING GROUP 6: SECURITY AND DEFENCE POLICY STRATEGY

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With a population of 1.4 billion people, India is the world's most populous country. Over the past decades, the country has experienced economic growth, and India is now the world's fifth largest economy. In addition, India is the world's largest arms importer, and the largest importer of arms from both Russia and France. Due to growing economic and political influence, India is perceived as an emerging power. Under the helm of Prime Minister Narendra Modi, India is seeking to translate this position into international recognition as a major power on par with other global players, such as Russia, China and the United States.

The multipolar world order seems to suit India very well. This is evidenced by India's reluctance to take sides in the Ukraine conflict. Instead of supporting the sanctions against Russia, India benefits economically by buying cheap Russian oil. In doing so, India is determined not to encourage closer ties between Russia and China, with which India has a long-standing and tense relationship due to border disputes and China's increased engagement in India's vicinity, particularly in the Indian Ocean. To counter the pressure from China, India has deepened its relationship with the United States.

How far is India willing to go in terms of cooperation with the United States if it comes to further escalation between China and the United States in the Indo-Pacific? And where does that leave small states like Denmark, which has entered into a strategic partnership with India on green technology and maritime cooperation? Drawing on strategic interactionism proposed by Erving Goffman, this presentation discusses the strategic implications for Denmark's strategic partnership with India in light of increased tensions between the United States and China.

# Operationalizing Psychological Defence: A Framework for Assessing, Addressing and Evaluating Hybrid Threats in Democratic Societies

## WORKING GROUP 6: SECURITY AND DEFENCE POLICY STRATEGY

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The need to develop resilience and psychological defence in the face of different forms of hybrid threats and malign foreign influence and interference is greater than ever. In this light, it has become increasingly obvious that a country's resilience and psychological defence capabilities must cover a broad spectrum of conflicts, including severe crises and war. This paper takes these complex and multifaceted types of threats as a point of departure in its attempt to outline an analytical framework for countering hybrid threats and foreign influence and interference. The ambition is then to operationalise this framework into a practical guide that can be used for identifying and analysing hybrid threats and foreign influence against democracies and their national interests.

To be able to build resilience and psychological defence, a shared analytical framework is needed, which provides a broader and more inclusive nation-state perspective than existing frameworks. The framework outlined in this paper is intended to be a starting point for analysis, usable for government and non-government actors alike. It aims to serve as a platform for addressing different dimensions of hybrid threats and malign foreign influence and interference. It also provides tools for comparing and analysing the dimensions within and across cases. The formation of responses to foreign interference should be seen as a process consisting of three distinct phases:

- (1) Assessing situational awareness;
- (2) Addressing defence and countermeasures; and
- (3) Evaluating the state's system for countering foreign interference.

This framework serves as the basis for the development of a practical analytical guidebook that is built to be modular, where one can pick and choose depending on own needs and questions asked. It is also developed to be suitable for both more structured analysis as well as less structured qualitative analysis. The guidebook is simplified into an analytical template that can be used as a readily available checklist for users.

# Allies Entrapped in the Grey Zone: War Gaming Offensive Cyber in Multilateral Operations

## WORKING GROUP 6: SECURITY AND DEFENCE POLICY STRATEGY

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The increasing role played by offensive cyber operations (OCO) in grey zone operations as part of the ongoing strategic competition raises the question of how OCO will be conducted by coalitions and alliances, e.g., NATO, particularly below the level of armed conflict. Presently International Relations (IR) literature on cyber conflict provides little insight into allies' motivations and decision making in this regard. We have designed a war game to increase our understanding of this academic lacuna by constructing and testing hypothesis regarding both major and minor allies' considerations with regards to OCO based on Snyder's secondary alliance dilemma stating that allies will seek to minimize the risk of being abandoned by their security guarantors while simultaneously minimizing the risk from becoming entrapped by allies' independent initiatives. The game is intended to illuminate the dilemma from both major and minor powers' perspective as well as identifying potential regional differences in response patterns.

An article detailing the theories and intends behind the war game, including the methodological considerations with this particular way to conduct research is underway.

Key words: Offensive Cyberspace Operations, Alliance dynamics, Grey Zone Operations, Hybrid tactics

# Manifestations and Implications - Conceptualising Trust in Defence Cooperation

## WORKING GROUP 6: SECURITY AND DEFENCE POLICY STRATEGY

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Trust has always played an important role in world politics. At the same time, trust remains a largely under-theorised concept in the study of international relations, particularly in defence cooperation. Different ways of conceptualising trust have implications for how trust is understood to affect state relations. Sometimes the concept of trust is used interchangeably with the concepts of faith or belief, making it more difficult to develop a nuanced analytical framework for analysing trust. Less attention has been paid to concepts that are closely related to phenomena such as familiarity, confidence and dependence, which may manifest as a trusting relationship, but on closer examination can be understood as interrelated but still distinct elements that serve different purposes. One way of understanding the nature and roles of trust has been to study distrust in the same context. However, trust and distrust are not simply opposites, but complex, multidimensional constructs. While trust embodies predictability, mutual understanding and shared interests, distrust can arise from perceived threats, past betrayals or strategic rivalries. In an era of rapidly evolving global security environments, the dynamics of trust and distrust among allies can influence strategic decisions, cooperative operations, and long-term commitments. To better understand the manifestations and implications of trust in the context of bilateral and multilateral defence cooperation, this study analyses rich empirical data, including expert interviews, surveys and observational data, through various theoretical lenses, including rationalist, constructivist and psychological perspectives, and adopts a layered approach. Against the backdrop of the turn of the 'Zeitenwende', military and political tensions between Russia, China, and the West, and the ongoing transformation of the European security architecture, this study seeks to bridge the gap between existing theoretical frameworks and their practical application in defence cooperation, and to propose a concept of trust that will provide new insights into the dynamics of defence partnerships and the operationalisation of trust in them.

# Nordic Whole of Society Approach: The Finnish Security Committee and the Norwegian Total Defence Forum as a Nucleus for Collaboration

## WORKING GROUP 6: SECURITY AND DEFENCE POLICY STRATEGY

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The Nordic countries have adopted a whole-of-society approach to address various crises, including security and defence issues. This paper examines and compares the principal collaborative mechanisms of two frameworks for comprehensive security/whole of society preparedness: The Finnish Security Committee and the Norwegian Total defence forum.

These forums serve as central bodies for coordinating efforts across different sectors and enhancing situational awareness. By fostering collaboration between government agencies, civil society organizations, and private sector entities, these initiatives aim to effectively manage crises and enhance national resilience. Governments actively seek ways to strengthen their capabilities, preparedness, and resilience to meet the challenges of transboundary crises like pandemics, hybrid threats or various forms of security policy crises. In this context, comprehensive security and total defence have gained increased attention as frameworks for addressing complex security problems.

Through a comparative approach, we look at how these mechanisms utilize network arrangements to effectively address transboundary challenges and enhance cross-sectorial situational awareness. We utilize a mixed-method approach, drawing on relevant legal, strategy and policy documents from Norway and Finland, as well as an in-depth survey with questionnaires administered to representatives from both forums.

A key question when designing the organizations for a future crisis, or altering or adapting it to an ongoing one, is how well the organizational structure matches the problem structure. This, we think, is an even more pertinent question when preparing to face a polycrisis which can cause unpredictable outcomes that surpass sectoral responsibilities and challenge traditional single ministry lead crisis management concepts. We will examine empirically how these forums addresses the current polycrisis reality and what are possible challenges to the whole-of-society concept.

Our case scenarios are specifically designed to examine the implications of hybrid threats on critical infrastructure, with a focus on subsea assets. In the Norwegian scenario, the questionnaire centres on the ramifications of damage to the Svalbard fibreoptic cable in 2021. Similarly, the Finnish scenario frames the questionnaire in the consequences of damage to the fibreoptic cable between Finland and Estonia in 2023. By contextualizing the research within the framework of hybrid threats and utilizing questionnaire focusing on these case scenarios, the study aims to provide insights into how both countries used collaborative platforms and facilitated a common situational awareness among its participants, in turn enhancing a collective, transboundary response.



# Contemporary Challenges to European Security Architecture

## WORKING GROUP 6: SECURITY AND DEFENCE POLICY STRATEGY

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This panel aims to discuss contemporary challenges to European security architecture by examining three interrelated aspects of the current (dis)order: democratic character of Western political systems, the neoliberal ideological underpinnings of the Western economic model, and the cohesion of NATO as the key element of the Western part of the European security order. While Russia's war against Ukraine is still raging, the European security order is divided. It is likely to remain divided even after the end of the war, with Russia remaining undefeated and unreformed politically. Russia will likely remain the main threat to European security in the coming decades. It is imperative, however, to discuss the changing character of the Western political, economic, and security order in Europe largely because the ability sustain domestic political and economic, as well as international security cooperation aspects of the order is likely to determine the degree of cohesion that the Western allies will be able to sustain.

Cohesion, however, cannot be treated as a given. There are numerous factors that threaten cohesiveness and unity of the West in Europe. On the political side, Western democracies face external challenges from authoritarian states and domestic democracy decline, manifesting in an increasing gap between state and society, political alienation, and unpredictability of political processes. On the economic side, neoliberal economic policies have created vulnerabilities that can be exploited by malign actors in the form of hybrid and non-kinetic methods of warfare. Economic and social policies based on neoliberal ideology create a pervasive state of uncertainty and fear about the future, eroding the social contract and resulting in a breakdown of trust and cohesion within societies and the political realm.

Neoliberal individualism undermines democratic principles, leveraging authoritarianism, while creating opportunities for anti-modern pseudo-conservative political movements to challenge the current order. On the security side, four interrelated problems weaken NATO unity: persistent fear of abandonment, unequal burden-sharing, disagreements regarding NATO enlargement, and lack of common view vis-à-vis the adversary. These problems are at the core of the academic debates on alliances. Taken together, challenges to democratic political processes, divisive effects of neoliberal policies, and inherent consensus-building difficulties within NATO create a powerful and toxic cocktail that threatens Western unity.

# Learning to Navigate the Battlefield: The British Military's Struggle with Shifting Paradigms

## WORKING GROUP 6: SECURITY AND DEFENCE POLICY STRATEGY

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In the annals of military history, the British military has long been revered for its prowess in conventional warfare, honed through centuries of battlefield experience and strategic acumen. Yet, the British military has found itself grappling with the complexities of modern conflict, where conventional rules of engagement no longer hold sway. In the wake of protracted counter-insurgency campaigns and the resurgence of armoured manoeuvre warfare, compounded by technological innovation and the proliferation of asymmetric threats, the British military faces a daunting challenge: to adapt, evolve, and reclaim its footing on the ever-shifting battlefield of the 21st century. Faced with the prospect of confronting this threat on the battlefield, this presentation argues that the British military currently finds itself ill-prepared and ill-equipped to mount a credible conventional deterrence.

The United Kingdom's recent announcement to increase defence spending to 2.5% of GDP by 2030, amounting to a significant uplift of 75 billion GBP, marks a pivotal juncture in its security posture. This presentation employs a neo-classical realist lens to analyse the implications of this decision within the framework of conventional deterrence. Drawing upon the complexities of deterrence theory, the presentation evaluates the announced capabilities and identifies novel areas for investment. In doing so, it considers the evolving conflict dynamics in Ukraine, the emerging Indo-Pacific threat landscape, and the resurgence of nuclear deterrence as key factors shaping the strategic calculus. By unpacking the multifaceted nature of deterrence, this presentation seeks to provide a comprehensive understanding of the challenges and opportunities facing the UK in the contemporary security environment.

# Russia's Mental Warfare and Europe's Resilience Amidst the Shadow of Hybrid Threats

## WORKING GROUP 6: SECURITY AND DEFENCE POLICY STRATEGY

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Cognitive warfare seamlessly integrates advanced technologies with human elements and systems, including Artificial Intelligence (AI), Machine Learning (ML), Information Communication Technologies (ICT), neuroscience, biotechnology, and processes of human enhancement. This integration presents significant security risks across economic, social, and cultural domains. Consequently, the scope of warfare has evolved from the traditional land, sea, and air domains to encompass six recognized domains by NATO: land, air, sea, space, cyber, and cognition. Given its inherently political nature, warfare aims at achieving political objectives, preferably without resorting to kinetic means. Russia has been employing what it calls mental warfare tactics, which align partially with NATO's cognitive warfare strategies, to pursue its political goals in Europe. In a general manner, the primary objective is to undermine Western democratic principles and institutions by exploiting the democratic processes themselves. Democracy faces peril when confronted with intense fear, particularly fears linked to survival, which can fuel robust collective social identities leading to intergroup bias and prejudice. Hence, by instilling fear, mental warfare may promote rigid, moralistic beliefs, authoritarian inclinations, and foster a growing distrust in Western democracy as a political system, thus paving the way for hybrid operations. Concurrently, such tactics may diminish the populace's readiness to defend their country or contribute to defence and security efforts. In other words, it is related to the resilience of societies against mental and hybrid warfare. While quantifying the specific direct impact of Russian mental warfare on European society proves challenging, it is feasible to assess the degree of social resilience to these tactics and identify potential causes, as well as how they have evolved over recent decades. This paper endeavours to achieve this through a combination of qualitative and quantitative methodologies, leveraging data from various sources including, but not limited to, the Eurobarometer, the World Values Survey, the European Values Survey, the European Social Survey, and other relevant data sources.

# Intelligence, Influence Operations and Cyber Attacks: A Contemporary Taxonomy of Information Warfare

## WORKING GROUP 6: SECURITY AND DEFENCE POLICY STRATEGY

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Information is a fundamental element in power disputes in all the spheres advocated by Morgenthau, like geography, availability of natural, industrial and economic recourses, internal stability and diplomacy. Information means not only technical, technological and/or operational data, such as troops numbers or equipment, but also analyses concerning social, moral and cultural aspects, both for a states' assessment of its own resources and those of its adversaries. This comprehensive range of actions is called "information warfare" (or "information operations"). The term agglutinates different methods, instruments, procedures and strategies under a single name. Thus, it begs the question: how to categorize the different actions and strategies developed under the umbrella term "information warfare"?

The general objective of this research is to develop a contemporary taxonomy of the actions and strategies that compound the "information warfare" concept.

Specific objectives are:

- (1) Analysing the different actions occurred in the 21st century classified as part of the "information warfare";
- (2) Classifying and ordering these actions according to the predominantly used means/instrument and their objective, and
- (3) Mapping the relationships between each category of action, visually representing them through charts.

This is a qualitative and theoretical research conducted through a literature review in the areas of Military Sciences, War Studies, Political Science, and International Relations. Preliminary results indicate that "information warfare" encompasses a continuum of actions ranging from classic psychological operations manipulating society through information (e.g., creating blogs in the target territory) to "pure" cyber operations, i.e., based on cyber-attacks on electronic systems, either seeking their destruction or inducing error through data falsification. The theoretical relevance of the research lies in understanding the phenomenon of informational warfare, illustrating its various facets. Its practical significance lies in enabling the definition of defence strategies and policies that encompass these issues broadly— avoiding, for example, an excessive focus on one type of operation at the expense of others.

The research can be subsequently supplemented by case studies confirming or refuting the categories here outlined here.

# Ecocide and Destroying Environment to Gain Advantage on the Battlefield – The Case of Environmental Destruction in Ukraine

## WORKING GROUP 6: SECURITY AND DEFENCE POLICY STRATEGY

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In our paper, we have studied the war in Ukraine from the view of deliberate environmental destruction caused by Russian operations. The focus has been on the wide range of different methods used by Russia since 2022 till the beginning of 2024, from the destruction of the Kakhovka dam and attacking nuclear power plants to threatening with the use of nuclear weapons. In general terms, ecocide refers to heedless or deliberate destruction of the natural environment by human action, whether it's through pollution or acts in war. The term stems from the environmental devastation in Vietnam War where the U.S military used the "Agent Orange" a chemical herbicide that to this day is still polluting the environment in Vietnam.

Some countries have codified ecocide in their domestic law. For example, the Russian Federation codified the crime of ecocide in 1996.

For our analysis we used the Finland's National Risk Assessment 2023 framework to evaluate various threats against the society. Our analysis shows that almost all methods used by Russia's military damage Ukraine's nature and environment immediately or over a longer period. In the bombing of cities and civilian infrastructure, sewage networks, industrial and energy infrastructure are damaged, and various emissions end up in the soil, waterways and atmosphere. These create a chain effect and multiply as the destruction increases, and they also affect the living conditions of citizens, including access to clean drinking water, food, and electricity. According to some estimates, the current destruction has already in many respects ruined a significant part of agricultural land that is central to agricultural production in Ukraine.

Russia's wide-ranging methods in Ukraine highlight the need to examine military operations more thoroughly from the perspective of environmental damage and the long-term effects it may cause on society's resilience. Destroying adversary's environment during war is nothing new, and as we see with ecocide, there are actors who are willing to ignore international law to achieve their goals in wars and conflicts. There is a great need to identify the possible vulnerabilities that if destroyed would cause significant and long-lasting environmental damage and raise preparedness for these types of attacks.

## Trends in Defence Modernisation, Transformation and Cooperative Security: The Indian Experience

### WORKING GROUP 6: SECURITY AND DEFENCE POLICY STRATEGY

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Contemporary global geopolitics is chequered by and intricately tethered to significant geo-strategic and geo-economic challenges, principal among them being the wars in Ukraine and the Middle East; revival of a “new Cold War” and “trade war” between the United States and China; China’s hegemonic ambitions in the Indo-Pacific region; constraint on energy resources; asymmetrical post-pandemic recovery and the like. As nations are compelled to navigate the impact of these exigencies, the imperative of adapting to or accommodating their military, diplomatic and economic policies gains import. Simultaneously, the need for aligning and coordinating the gamut of their policies with “like-minded” partners, whether at the bilateral, mini-lateral or multilateral levels, merits consideration to emphasise cooperative security and consolidate common developmental goals.

In this perspective, India’s defence/military approach and strategy has been subject to scaling up, transformation, evolution and contemporaneity. It is poised to guide India’s defence transformation and modernisation, in order to address the global, regional and domestic challenges to security. As an “emerging middle power” in the Indo-Pacific - a region acknowledged to evolve as the focal point of global geo-strategic challenges - entailing the shift in dynamics from the Euro-Atlantic, India’s defence policy and strategic compulsions gain an important analytical dimension.

In this backdrop, the abstract proposes to analyse and address:

The rationale, trends and trajectory that India’s defence establishment pursues towards its transformation and modernisation; Structural and operational strategies, including self-reliance and indigenisation in defence; Trends in India-European Union’s (EU) defence partnership, in the context of EU’s Indo-Pacific strategy; and Challenges and Opportunities.

# Why does Russia Prefer Strategic Asymmetry?

## WORKING GROUP 6: SECURITY AND DEFENCE POLICY STRATEGY

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The topic of the research is chosen for its significance as one of the main problems of contemporary international security — the evolution and function of contemporary Russia's security policy. The research covers several main areas of Russia's external security policy and its function. It covers the invasion of Ukraine as well. It discusses problems such as tactics, operational and strategic level developments, and focuses on their functions in the Russian security and foreign policy postures. That is, how such methods contribute to the implementation of Russia's security and foreign policies and how it affects them. The project emphasizes the necessity of asymmetry in the strategic interaction for the Russian security strategy. This is the main argument of this book project and it runs through every chapter. It aims to lead the readers into the main argument, with the book providing them with an introduction to the contexts in which asymmetry applies. Another argument of the research is that asymmetric approaches are preferable for Russia mainly because of its weaknesses and shortcomings, including in its military (such as lack of troops preparations, logistical mess and shortcomings on the armament supply) have been revealed since the beginning of the war in Ukraine.

# Warfare is Emotional Subversion: Reorienting the Emerging Research Agenda

## WORKING GROUP 6: SECURITY AND DEFENCE POLICY STRATEGY

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“Cognitive warfare” has recently emerged as a concept supposed to capture the changing character of contemporary warfare. The problem is that the concept does not make much sense, either strategically or psychologically. From the perspective of strategic theory, the concept needlessly militarises non-military activities, it confuses ends with means and fails to draw on relevant strategic thought. From a psychological perspective, the concept lacks clear content of cognition, relies on an outdated understanding of various cognitive processes and fails to develop a link between cognition and behaviour. All these deficiencies can be rectified if we understand the relevant phenomena as subversion rather than warfare and apply an emotional rather than purely cognitive lens. Accordingly, this article develops preliminary contours of a more useful concept of emotional subversion. In this way, the article allows practitioners to better understand the nature of the challenges they face and academics to study that challenge in a more meaningful manner.



# Working Group 7: Armed Forces and Society

## Working Group Chair:

Rene Moelker; Netherlands Defence Academy

## Co-Chair:

Kristin Lungkvist; Swedish Defence Academy

## Panel on Sweden's Psychological Defence

### WORKING GROUP 7: ARMED FORCES AND SOCIETY

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Psychological defence both has been and is a part of Sweden's defence. The responsible institutions and functions of this capacity as well as the society they have been designed to defend has however changed over time, from times of war and peace to the current grey zone. At the core of the concept psychological defence lies the recognition of a cognitive level and a recognition that the perception of war among the population is used as a weapon by antagonists, or could be used as a deterrent and active part of Sweden's effort to defend herself against aggressors. Today, psychological defence thus spans as a function within both the military and civil side of Sweden's total defence.

In this conference discussion, scholars from a wide range of scientific areas are invited to discuss psychological defence's role in Sweden. The panel brings together four perspectives on Sweden's psychological defence. The invited participants represent historians knowledgeable in Sweden's psychological defence as constructed during the Cold War, others have focused on the concept's ties to media and communication studies, somehow psychological defence relates to modern civil society and the civil defence in Sweden, and the final discussant are a part of the ongoing construction of a university program in Sweden designed to educate students in the subject of psychological defence today. Through common discussions, the group seeks to tie together historic and contemporary perspectives on Sweden's psychological defence, while also unpacking the concept as one with a transdisciplinary reach. Together with the audience, the panel will finally open up for a discussion on the opportunities and risks for democratic societies in relation to psychological defence's role in warfare.

As a whole, this panel discussion aims to address the concept of psychological defence as a bridging interest between scholarly discussions about military and civil defence, as well as a shared interest in Sweden's total defence.

# Changes in the Status of Women in the Lithuanian Armed Forces within the Context of Civil-Military Relations

## WORKING GROUP 7: ARMED FORCES AND SOCIETY

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The relationship between civil society and the military is influenced by national, international, as well as political and social factors (Williams, A. W.) Threat perceptions and the international situation shape the military and society itself. Moskos's well-known method to analyse civil-military relations in a dynamic environment proposes that the following important variables should be analysed: perceived threat, force structure, definition of the core mission, the dominant military professional, the public's attitude towards the military, relations with the media, the civilian workforce, women's roles, spouses and the military, homosexuals in the military, and the controversy of conscientious objection. An analysis of the role of women in the military in the 20th century shows that there has been a huge shift from a separate corps of women, or no women at all, to partial integration and full integration in our days. However, this is true for the Armed Forces of the USA, Canada, the Netherlands, but not for all NATO countries, where the integration is still partial or minimal. The role of women has certainly expanded recently, but not to the extent that full integration is desired. Women are still limited to play a combat role in the armed forces, a demand that is shared by parts of civil societies. Moreover, women in the military face the challenge of integrating into a 'gendered' organisation, such as an army where there is a clear gender regime, an organisational structure clearly based on the distribution of genders in terms of both opportunities and power (hierarchy) and occupational structure (gendered division of labour), and of obtaining a higher representation in terms of higher ranks and positions. The conference presentation focused on the changing role of women in general and in the Lithuanian Armed Forces in particular since state restoration in 1990. The presentation is based on the qualitative analysis of secondary data from open military sources and social media. The data analysis presents the dynamics of the changing role of women, as well as how the current international security situation due to Russia's war against Ukraine, as well as media activism, has changed the perception of security of the Lithuanian public and the military, and how attitudes towards women in the military in general and the role of women in the consolidation and development of the military forces have changed.

Key words: women in the military, civil-military relations, 'gendered' organisation.

## Towards Greater Diversity in the Military. How Can We Prepare Officer/Naval Cadets to Become Agents of Cultural Change in the Armed Forces?

### WORKING GROUP 7: ARMED FORCES AND SOCIETY

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There is a growing desire in recent years to welcome greater ethnocultural diversity into the armed forces. Long essentially made up of white males, Western Armed Forces are now attempting to become more “representative”, i.e., to better reflect the sociocultural diversity characteristic of the contemporary societies from which they emanate. Efforts to integrate women go back several decades. Efforts to increase the recruitment of candidates from racial and gender minorities, as well as from other historically under-represented groups, are more recent. These initiatives in favour of “diversity” represent a certain symbolic break with one of the pillars of Western military culture to date, namely that of “uniformity”. Armed forces have always to this date favoured homogeneity over plurality, uniformity, to the detriment of diversity. Uniformity has always been considered an essential feature of military culture, notably to reinforce esprit de corps among its members.

This proposed paper has two aims. Firstly, we propose to reflect on the reasons for greater diversity within the armed forces. A better understanding of these reasons is essential if we are to better appreciate the initiatives aimed at this objective, particularly from the military’s point of view. Among these reasons are democratic representativeness, expanding recruitment pools in an increasingly ethnologically diverse society, and improving military effectiveness, particularly in the context of asymmetric warfare. Secondly, we propose to consider how to integrate these questions into the training and education provided to officer/naval cadets at military academies. For it is they, as future officers, who will be partly responsible for changing the organizational culture of the armed forces to make it more welcoming of diversity - an ambitious undertaking that will undoubtedly take several years, if not decades, to accomplish. In other words, how can we best prepare officer/naval cadets to become “cultural change agents” within the armed forces?

# Disinformation Dynamics: Social Media's Role in Shaping Modern Information Warfare

## WORKING GROUP 7: ARMED FORCES AND SOCIETY

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In contemporary international conflicts, information warfare has emerged as a key domain, particularly evident in conflicts like the Israel-Hamas conflict. This presentation analyses the dynamics of information warfare, emphasizing the significant role of social media as a battleground, the strategic manoeuvres of involved parties, and the complexities surrounding the employment of information operations. It examines how actors like Israel and Hamas use social media platforms such as X, TikTok, and Facebook to shape narratives, influence public opinion, and respond to opposing views. Israel's effective use of information warfare strategies, including the deployment of hasbara tactics for public diplomacy, contrasts with Hamas's reliance on platforms like Telegram and the development of its own applications to control narratives and reach specific audiences. This study also highlights the challenges in attributing cyber threats and disinformation campaigns to specific actors, given the prevalent use of techniques that obscure identities and origins. Social media have transformed from a mere communication tool to a key element in warfare dynamics, emphasizing the need for nuanced understanding and strategic responses in the realms of cybersecurity, geopolitics, and international relations. This presentation aims to examine the evolving nature of modern conflicts and the critical role of information warfare in shaping both the course and perception of these conflicts on the global stage.

# Societal Gender Equality and Military Effectiveness

## WORKING GROUP 7: ARMED FORCES AND SOCIETY

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This study examines the relationship between societal gender equality and military effectiveness. In 2021, a viral video contrasting Russian and American military advertisements appeared to suggest that societies with traditional gender roles have stronger militaries, while those influenced by feminism and gender equality have weakened armed forces. This idea is in line with the narrative of Russian President Vladimir Putin and certain military theorists.

However, in the full-scale war following the renewed Russian invasion of Ukraine in 2022, Russian forces generally performed poorly, while Ukraine, more gender-equal than Russia, outperformed expectations. This suggests that more gender-equal societies may not necessarily have worse-performing militaries. Of course, anecdotal evidence from individual wars provides insufficient evidence for general conclusions. Therefore, this study includes a comprehensive study of all wars from 1800-2011, testing two competing hypotheses: societal gender equality is associated with lower military effectiveness, and societal gender equality is associated with higher military effectiveness.

# Operation Welcome: Analysing the Brazilian Military's Role in the Venezuelan Migration Crisis

## WORKING GROUP 7: ARMED FORCES AND SOCIETY

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Since 2016, the complex socio-economic and political crisis in Venezuela has precipitated an unprecedented exodus, with over 7 million Venezuelans being compelled to flee their homeland in search of refuge elsewhere. In 2018, in response to the deteriorating conditions at its northern border, Brazil initiated Operation Welcome (Operação Acolhida), aiming to provide shelter and support to Venezuelan immigrants and refugees. This initiative's reliance on military personnel for its implementation has sparked considerable debate, raising concerns about the militarization and securitization of Brazil's migration policy.

This paper seeks to critically examine the role of the Armed Forces in addressing the Venezuelan migration crisis through their preparation and deployment in Operation Welcome. The research question is: Is the training provided to Brazilian military personnel adequately tailored to equip them to care for individuals in situations of extreme vulnerability in contexts of mobility?

Adopting a descriptive, qualitative, and exploratory approach, this study employs a range of data collection methods, including interviews with key stakeholders involved in the training and deployment process, as well as document and literature analysis. Data were analysed using qualitative analysis software such as NVivo, with findings highlighted through interviews and quotations within the text.

The research identifies a pressing need for improvements in training duration to mitigate perceptions of militarization. Furthermore, it highlights qualitative aspects requiring enhancement, such as the need for better Spanish language training, a deeper understanding of the local reality, and greater involvement of civilian actors in the training process. This aims to position military personnel within a more integrated, interagency, and pluralistic environment.

The investigation into the preparedness of military personnel to address the needs of highly vulnerable populations in migration contexts sheds light on the complexities of leveraging military resources in humanitarian missions. It underscores the importance of comprehensive, multidisciplinary training that goes beyond traditional military preparation to include cultural sensitivity, language proficiency, and an understanding of the civilian and humanitarian aspects of migration crises. By drawing on interviews with those directly involved in Operation Welcome and examining relevant documents and literature, this paper contributes to the ongoing debate on the appropriateness and implications of military involvement in migration management and humanitarian assistance. The case studied is Brazil reception of Venezuelan immigrants and refugees, but it can be applied to similar contexts of forced migration in other parts of the world.

# Finnish Reservists and Solidarity with NATO's Collective Defence

## WORKING GROUP 7: ARMED FORCES AND SOCIETY

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In Finland, citizens' support for defence policy and the willingness to participate in the various tasks of national defence have traditionally been strong. In opinion polls, citizens' will to defend their country has been at a very high level by international comparison. As the national defence is based on conscription, the citizens' desire to participate in the national defence and their support for the defence system has been a prerequisite for a credible national defence. Finland's accession to the military alliance NATO has raised questions about how the nationally structured defence will expand in the direction of the wider solidarity required by the military alliance. The question is related to the change in defence identity, where shared values, community-building stories and perceptions of threats are central.

This presentation discusses the change of the Finnish defence identity from national-centric thinking to a more international solidarity. The data was collected through a survey, which was answered by approximately 3,500 reservists. The analysis is carried out both quantitatively and qualitatively. The presentation considers how Finnish reservists' will to defend their country is built in the context of membership in the military alliance and what kind of tensions it might involve. NATO's support is strong among the Finnish citizens, but the feeling of solidarity for collective defence requires new kinds of stories that build Finnish defence identity as a military allied country. The participation of Finnish reservists in NATO's defence is not yet clear, and our research discusses the related public perceptions and thoughts.



# The Civic Dimension of Resilience: The Case of Finland and Latvia

## WORKING GROUP 7: ARMED FORCES AND SOCIETY

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Resilience, a concept describing society's ability to withstand disasters, including military attacks, has gained importance in Europe amid increasing hybrid and conventional threats from various hostile actors in the international arena. It is a priority issue in countries bordering Russia due to its increasing readiness to use military force against neighbouring countries. Resilience depends on many factors, including a vibrant civil society determining society's self-organization capabilities and strong state and society relations. Civic aspects of resilience may be critical in disasters when public governance is overloaded or interrupted. The article delves into how 'civic' and 'resilience' interrelate, assuming that a 'resilient society' is the desirable end-state in preventing and overcoming disasters and 'civic aspects' are one of its building blocks. The paper outlines the civic dimension of resilience as described in the theoretical literature. It defines measurable indicators of the civic aspect of resilience in the context of national security, such as willingness to defend a country, commitment to democratic values, vertical and horizontal trust, voluntary work, social capital, and others. The empirical part of the paper is based on the secondary data from Latvia and Finland – two countries bordering Russia but with different political cultures and maturity levels of comprehensive national defence, which is a defence concept aimed at increasing resilience.

Using desk research, the paper aggregates survey data, expert assessments, and other data types describing each identified variable concerning Finland and Latvia. The comparative approach gives insights into civic indicators in two different contexts and outlines the transformation goals for new democracies to promote resilience.

## “Unleashing the Power of Individuals” – (Un-) Desirable Urban Futures and Sociotechnical Imaginaries of Civil Defence as Participatory War

WORKING GROUP 7: ARMED FORCES AND SOCIETY

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Following the Russian invasion of Ukraine, the concept of civil defence – understood as a military theory about, and strategy for national survivability – has made a comeback on policy agendas around Europe. The civilian Ukrainian resistance has been praised and admired, and by now represents a blueprint for resilience and civil defence strategies across Europe. By studying civil defence as sociotechnical imaginary in the Stockholm region, Sweden as a case in point, this article offers an analysis of emerging visions of civil defence as ‘participatory war’ where the civilian domain and population at large represent an essential component in the operational theatre of an imagined future (urban) war. This article contributes to a novel understanding of this historically, spatially and culturally specific version and vision of civil defence and offers a critical analysis of how such sociotechnical imaginary plays into contemporary war preparedness and rearmament discourses and practices in Europe.

# Mediatization of Intelligence Organisations

## WORKING GROUP 7: ARMED FORCES AND SOCIETY

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War has always affected the cognitive dimension, however, recent developments in Ukraine and Gaza have increased the emphasis on warfare making use of the virtual realm. Military actions now extend beyond the traditional battlefield, significantly impacting both virtual and cognitive dimensions – cyberspace, social media, and the perceptions of target audiences. In Ukraine, President Zelensky addresses both his population as well as the rest of the world online, to respectively maintain the morale of his troops and secure Western aid. In Israel, the IDF Spokesperson's Unit uses social media to influence public opinion with the goal of justifying their military actions. People all around the world rely on the daily intelligence updates by the British Ministry of Defence to satisfy their daily information needs.

A result of these recent developments is the mediatization of (military) intelligence and security services. The authors explore the extent to which intelligence organisations use mediatization - i.e., the process or theory whereby mass media influences and interacts with other sectors to shape and frame public discourse and debate – to achieve their goals.

Interestingly, while intelligence organisations are part of a larger national military and security system, they nevertheless have an organisational interest of their own. Exploring three different intelligence landscapes – Ukraine, Israel, and the United Kingdom – the authors argue that intelligence services use mediatization for several purposes. Firstly, these organisations actively employ social media platforms to engage citizens, with communication serving as a tool for advice that informs the public about imminent threats and mobilises them to share relevant information. Secondly, intelligence services attempt to assert their presence and capabilities, projecting strength and competence to both domestic and international audiences. Lastly, through communication they justify their operations and decisions to government entities and civil society. In this context, communication also acts as a mechanism for shaming or discrediting adversaries, to reinforce the narrative of the agencies' necessity in safeguarding security.

# Taiwanese Ukraine War Veterans Experiences of Returning to Taiwan

## WORKING GROUP 7: ARMED FORCES AND SOCIETY

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Taiwan is a small democracy outside the coast of China that struggles for diplomatic recognition and faces a possible Chinese invasion within the coming years. As the full-scale Russian invasion of Ukraine started, Taiwan saw a small number of citizens, often with military backgrounds, joining international legions to fight with Ukraine against Russia. Through interviews and gathering pictures, social media posts and other documentation, this paper explores Taiwanese war veterans' motives for joining the war and the connection between going to Ukraine, attempts to break Taiwan's isolation, and anticipating a war in Taiwan. By focusing on how these veterans seek to communicate something about and through the war to fellow Taiwanese, and how their view of Taiwan is affected by their war experience, the paper contributes to the literature on military memoirs and scholarship that discusses the varying motives for people to sign up to fight wars, as well literature discussing how civilians become mentally prepared for war.

# Social Representations of Willingness to Defend the State Based on Finnish Defence Forces Official Instagram Account

## WORKING GROUP 7: ARMED FORCES AND SOCIETY

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Willingness to defend the state is phenomenon often referred to in celebration speeches and political discussion in Finland. It is not well-known phenomenon in countries which have their defence based on professional military system, but it is important concept in countries which base their defence on mandatory conscription. Willingness to defend the state relies on people's attitudes, opinions and conceptions about their country as a place to fight for.

Possible threats, belief in own defence capabilities and experiences about society as institution also influence on people's view. Previous research about the topic consists of articles analysing political speech, literature and discussions between people but there is not much research about visual content. This article makes opening towards visual content research by analysing social media content which includes text, photos and videos. Social representation theory (SRT) is a widely known paradigm in social psychology which has been applied in many researches since the 1960's. Social representations are common conceptions about abstract phenomenon made tangible using two parallel processes: objectification and anchoring. Social representations are not just opinions and attitudes but deeper common theories about certain phenomenon.

This presentation discusses social representations about willingness to defend the state based on posts in Finnish defence forces official Instagram account @puolustusvoimat.fi. The main objective of Finnish defence forces communication in social media is to raise citizens willingness to defend the state by sharing information about activities of the armed forces.

Major change in Finland's security environment happened in the beginning of the year 2022 when Russia invaded Ukraine. This act began the process which Finland applied for membership of NATO. Process came to the end in 4.4.2023 when Finland was accepted as a member of NATO. This can be considered as the most significant change in Finland's defence policy in 21st century, therefore year 2023 can be viewed as interesting subject of review.

Content of this article consists of all @puolustusvoimat.fi account feed and reel posts from the year 2023. Those were analysed using content-based content analysis which was complemented using quantification.

## Aspects on the Comprehensive National Defence

### WORKING GROUP 7: ARMED FORCES AND SOCIETY

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The Finnish defence system relies on comprehensive national defence, a model derived from the Cold War era concept of total defence, that combines all the national and international military and civilian activities necessary to safeguard the sovereignty of the society and the living conditions and safety of its citizens from external threats. Nowadays, an essential part of the model is comprehensive security, a cooperation model for safeguarding the vital functions of society through a whole-of-society approach handled together by authorities, businesses, NGOs and citizens. Throughout its independent history, Finland has been militarily non-aligned and strongly relied on its independent defence solution, with general conscription, defence will and credible military defence capabilities as bedrocks of the nation's defence. As Russia's aggression towards Ukraine profoundly changed the security environment in Europe, Finland swiftly started its process to join the NATO and became member of the alliance in April 2023.

This article describes how the comprehensive security approach is one of the bedrocks of Finland's national defence and security. We delve into the origins of total defence, the evolution of the model during the Cold War and the emergence of the comprehensive security approach. We discuss the importance of the comprehensive national defence and security models in the current complex hybrid and cognitive warfare environment. We identify the models' key components and discuss how they contribute to the two main objectives of the model – building deterrence and resilience against threats to society. Finally, we assess how the current models could evolve in the future, emphasizing the implications of Finland's reversal from militarily non-aligned to deeply militarily integrated nation in the changed security environment.

# Civil-Military Relations Revisited: Paramilitary Organisations and the Civilian Defence Capacity in Georgia

## WORKING GROUP 7: ARMED FORCES AND SOCIETY

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The ongoing Russia-Ukraine war provides a glimpse into how civilian contributions to war can look in a contemporary context. While the conscription system represents the main recruitment method for maintaining the military force in Georgia, the number of civilians enlisting in short-term military training programs has increased. The emergence of paramilitary groups in Georgia is not a new phenomenon, however, the academic knowledge on such groups, especially in a more contemporary context remains limited.

The proposed paper addresses the civilian dimension of the total defence concept which entails the military resistance of civilians to the aggressor in the case of a foreign invasion. More specifically, I propose to study two voluntary paramilitary formations in Georgia: Association "Aisi" and Gen Mazniashvili Youth Legion". This paper will provide useful insights into the ideological foundations, motives, practical organisation, and the modes of groups' relations with the state institutions.

Civil-military partnerships require scrutiny to ensure that reactionary military formations beyond the state security and defence apparatus operate within the margins of the national law, abide by the transparency and accountability norms, and contribute to the general objectives of the state's national security strategy. Thus, the overarching aim of the proposed research is to enrich the empirical knowledge about evolving civil-military relations by examining the convergence between the strategic objectives and the goals of the voluntary military formations originally established outside of the state security sector. In doing so, the proposed research aims to contribute to the theoretical and policy debates concerning total/comprehensive defence with a particular emphasis on civilian defence and the relations during peacetime between the military and society at large. Paper will use the Causal-Process Tracing method to identify the sequential and situational configurations of key determinants of civilian-military mobilizations in Georgia.

## The Influence of Processes of Information Warfare to Societies' Resilience (Case of Lithuanian Riflemen's Union)

### WORKING GROUP 7: ARMED FORCES AND SOCIETY

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The presentation grounded on the results of the research conducted with members of the Lithuanian paramilitary organisation Lithuanian Riflemen's Union (LRU). The LRU unites active and patriotic Lithuanian citizens, who are also naturally aware of threats to national security. It is also important that the Lithuanian Riflemen's Union is one of the integral elements ensuring Lithuania's national security.

The research examined how the members of the above-mentioned organisation perceive the threats to the national security of the country in the information sphere. The problem analysed is related to the abilities to recognise and assess information threats. The research also investigates how the participants see and evaluate the role of the media (and most importantly the mass-media) in both enabling and preventing information threats.

The material for the study was selected through focus group discussions with representatives of the territorial units of the Lithuanian Riflemen's Union in different regions of the country in November-December 2023 (10 focus groups in total).

Although the results of the research are not sufficient to make generalisations at the level of the Lithuanian society or even at the level of the LRU, they allowed to identify certain problematic aspects related to the perception of information threats, as well as to the (mis)perception of mass-media functions. The main observations relate to the fact that the risk of information warfare by third countries is not only manifested through the direct impact of propaganda and disinformation, but also through a certain transformation of the perception of the political and public sphere and its functioning principles (i.e., democracy). While some respondents demonstrated an understanding of the role of the mass-media in a democratic society, others expressed a general distrust of the media and work of journalists as such. In this sphere, there is a reinforcement of certain stereotypes.

Among the negative trends observed was also an overestimation of the role and influence of the media. There was also a general radicalisation of attitudes and fears that information warfare tools could activate hidden hostile groups in societies (some respondents used the term 'fifth column'). Some respondents would be willing to sacrifice democratic principles (e.g. freedom of speech) to defend themselves against information threats. Therefore, it can be concluded that the impact of information warfare on society may not only be direct (through the dissemination of narratives), but also indirect, triggering an overreaction to the potential threat itself.



# Dynamics of Intra-Insurgent Conflict in Afghanistan: Analysing the Afghan Taliban and Islamic State Khorasan (IS-K) Post-August 2021

## WORKING GROUP 7: ARMED FORCES AND SOCIETY

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The takeover of Afghanistan by the Taliban in August 2021 marked a significant shift in the region's geopolitical landscape, leading to new forms of intra-insurgent conflict, particularly with the emergence of the Islamic State Khorasan (IS-K). This proposed study aims to explore the strategic interactions and conflicts between the Taliban and IS-K, examining the underlying causes and potential implications of their power struggles for regional stability and security dynamics.

Employing conflict theory as the primary analytical framework, this research will investigate how economic resources, ideological differences, and external support play pivotal roles in shaping the dynamics between these insurgent groups. By focusing on these factors, the study seeks to uncover the deeper socio-political mechanisms that fuel and sustain intra-group conflicts in war-torn societies.

Methodologically, the research will utilize a qualitative approach, involving the detailed content analysis of insurgent communications, propaganda materials, and secondary data sources such as intelligence reports and scholarly articles. This comprehensive analysis will help map the conflict landscape, highlighting the tactical and strategic moves of each group, and identifying the key drivers of violence and instability.

The anticipated findings of this study are expected to contribute significantly to the field of military science by providing a nuanced understanding of intra-insurgent dynamics. Such insights are crucial for policymakers, military strategists, and international stakeholders who are engaged in conflict resolution, peacebuilding, and regional security arrangements.

Furthermore, by elucidating the complex interplay of factors driving inter-group violence, the research will offer valuable perspectives on the challenges of managing insurgent relationships and the potential pathways to mitigating conflict in post-conflict scenarios. It will also shed light on the broader implications of such conflicts for international peace and security, emphasizing the need for a strategic approach to understanding and intervening in intra-insurgent conflicts.



# Working Group 8: Defence Economics and Management

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# Terrorist Financing and Economic Consequences of Terrorism: The Case of Irish Republican Army (IRA)

## WORKING GROUP 8: DEFENCE ECONOMICS AND MANAGEMENT

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Terrorism, which as a term defies definition, is not a new-born phenomenon. And although it is ubiquitous in all societies, its sources or motives as well as its methods vary greatly over time and space. The Irish Republican Army (IRA) constitutes a typical example of the anticolonial wave terrorist groups struggling for self-determination after the collapse of empires in the 20th century. As such it belongs to the so-called “old” or traditional terrorism as opposed to Al Qaeda or ISIS, which represent what are said to be “new” terrorist groups.

The reasons that prompted the rise and development of the IRA as a terrorist group and its key characteristics have been much discussed in the related literature. The strengths of the IRA, that is the factors that made it long-lasting and successful, as well as its shortcomings along with their potential effects have been adequately researched. Similarities and differences between the IRA and other terrorist groups, especially in the light of their core values, their followed strategies and the nature and effectiveness of counter-strategies on governmental level have also been well recorded in the terrorism literature.

Even though there exist a few studies focussing on the economic repercussions of terrorism, the economics of the IRA both from the input (terrorist financing) and the output (economic consequences of terrorism) side do not seem to have attracted much attention. This paper aims to explore the economic impact of the IRA by employing an input-output approach. Desk research was used to gather and analyse data from various sources, such as books, journals, reports and relevant websites.

The results suggest that more recent literature points to a plethora of non-US fund- raising mechanisms for the IRA, contrary perhaps to the popular history or early studies on the subject. The results also indicate that the IRA, with its use of violence, negatively affected in multiple ways the British economy and, even more, that of Northern Ireland, not to mention that of the Irish Republic. The results are discussed in terms of three types of economic impact, namely direct, indirect or intangible or secondary and “other” costs of the IRA terrorist attacks, always bearing in mind the short-run versus long-run perspectives.

**Keywords:** terrorist groups, PIRA (Provisional Irish Republican Army), terrorist financing, economic consequences of terrorism, economic impact of terrorism.

# Bridging Defence, International Politics, and Market Perspectives to Analyse the Impact of Crises on Shipping

## WORKING GROUP 8: DEFENCE ECONOMICS AND MANAGEMENT

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Traditionally, impacts on maritime transport have been viewed from either an intrinsic or an external perspective. At the same time, security issues are often viewed from the international relations, political, and/or defence perspectives. In this paper, the authors attempt to bring together paths that were usually analysed separately.

The idea behind this approach is that maritime transport is at the core of both analytical tracks, because whether we are dealing with external shocks (such as climate, security issues, disasters, or health emergencies, among others) or with phenomena intrinsic to the functioning of maritime markets, the results on the lives of people and societies and on economies are often similar in several respects.

The aim of this research is to identify the central processes through which conflicts and shocks impact on maritime transport and, more specifically, the structural consequences that arise from this process, both on the socio-economic side of development and on the peace side.

For the purposes stated above, the research is organised in the following goals and sections.

- (1) To identify main risks and trends that build the framework where maritime transport works, that includes all kind of conflicts and shocks. To define key concepts which establish the sought analytical framework. These definitions will reveal different possible approaches to the question of how the impact of conflicts affects maritime transport.
- (2) Literature and main facts review that focus on the aspects that were highlighted in the previous definitions. In the light of literature, this section analyses main historic facts affecting maritime transport. Finally, for the main conclusions, the authors show why some
  - a) Armed-conflicts such as the Suez Crisis in 1956, the current raising armed conflicts or potential conflicting areas (for instance the Arctic) and
  - b) Shocks like COVID 19 or other non-armed conflicts (e.g. current Panama canal drought) are exemplary case studies useful to apply the framework we have developed to unveil the different processes that explain the impact that these particular crises had on maritime transport from different perspectives.

## “The Israel/Hamas Armed Conflict – Another Validation of Maritime Domain Criticality During the 21st Century”

### WORKING GROUP 8: DEFENCE ECONOMICS AND MANAGEMENT

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Amidst intense media coverage of air and ground military operations defining the Israel/Hamas armed conflict, robust maritime domain operations with far-reaching diplomatic, military, and economic implications also rage onward. These maritime activities not only include external actors like Hezbollah, the Houthis in Yemen, and Iran, but also involve some of the most profound maritime operations (resembling combat situations) for the U.S. and Euro-Atlantic partners in decades. Additionally, Israel/Hamas armed conflict related maritime domain operations showcase the depth, breadth, and utility of asymmetric capabilities that will threaten naval, commercial, and maritime infrastructure assets and operations throughout the 21st Century. Lastly, these maritime domain operations extend the geographic scope of conflict well beyond the Israel and Gaza borders and bear international implications as critical as those defining ground and air theatres.

This paper analyses maritime domain equipment and tactics that define this conflict; illustrates alliances borne by both sides and their impact upon maritime security, regional stability, and global commercial markets; and showcases how weaker adversaries can threaten far more capable maritime powers. The analysis builds upon maritime domain lessons learned from the Russia/Ukraine conflict, and highlights ways 21st Century maritime domain combat operations can directly influence ground/air battlespace actions, global economies, and diplomatic objectives. With specificity, this paper highlights the military, economic, and diplomatic significance of: the mechanics and speed with which maritime dominance is (or is not) secured within 21st combat operations; challenges to achieving and sustaining maritime dominance within a maritime environment defined by non-state actors, irregular warfare, asymmetric threats, and/or the absence of law; the tactical significance of “other” operations (i.e. special forces, information gathering) conducted from the sea; and the unmatched strategic and tactical importance of Anti-Access Area Denial (A2AD) achieved within the maritime domain.

As we are now operating within an era termed the “Ocean Age” and/or “Era of Globalization,” maritime security within our world’s most critical shipping lanes and port facilities must be sustained, and thereby increases propensity for maritime powers and rogue actors to become engaged in conflicts regardless of the original belligerents involved. By leveraging Israel/Hamas armed conflict maritime domain realities, this paper illustrates not only potential vulnerabilities borne by maritime powers, but also the vast array of tactical threats maritime powers must simultaneously address --- especially within regions historically defined by asymmetric tactics, such as: the Red Sea, Bab al-Mandab Straits, Gulf of Oman, Straits of Hormuz, and Arabian Gulf.

# “The U.S. Flagged Commercial Fleet – A National Security Cornerstone of a Previous Era & a 21st Century’s Liability”

## WORKING GROUP 8: DEFENCE ECONOMICS AND MANAGEMENT

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For an extended period, preceding World War II, a robust U.S. flagged commercial fleet and supporting maritime infrastructure superbly complemented U.S. naval power to ensure military success, economic vitality, and global influence. Amidst cyclical changes in U.S. flagged inventory, unmatched U.S. shipbuilding and maritime support capabilities yielded the self-sufficiency needed for military sealift, economic sustenance, and maritime dominance despite regional or global maritime threats.

By contrast, the post-World War II era is defined by a significant decline in U.S. flagged commercial inventory, the absence of a sufficient U.S. maritime industrial base to mitigate this trend, and a foreboding dependence upon non- U.S. flagged carriers to support both military and economic requirements in times of conflict. Within the 21st Century “Ocean Age” in which national security requirements and military objectives can be severely impacted by disruptions to commercial maritime transport, the 2024 U.S. flagged commercial fleet is viewed as undersized to fulfil national security objectives. Moreover, insufficient U.S. provisions exist to mitigate the military and economic impact if non- U.S. flagged carriers are unwilling or unable to meet vast U.S. military sealift and economic support requirements.

This paper highlights historic U.S. Merchant Marine criticality to national security; analyses current U.S. flagged government and commercial inventory; highlights causal factors for a multi-decade capacity decline; and identifies key legislative instruments and economic incentives that could enhance U.S. national security by mitigating this downward trend.

These primary instruments include the Jones Act, Cargo Preference Acts, Maritime Security Program (MSP), Tanker Security Program (TSP), economic mechanisms (tax incentives for transporting U.S. imports and exports via U.S. flagged vessels), and diplomatic tools (agreements with international partners to help ensure percentage trade aboard U.S. flagged vessels).

The contents herein also highlight the critical need for a comprehensive U.S. maritime strategy that mutually addresses naval, commercial, and maritime infrastructure requirements. Such is imperative to ensuring U.S. national security amidst a potentially flawed U.S. defence industrial policy that assumes 21st Century economic globalization and existing maritime alliances are sufficient to ensure access to requisite types and quantities of non-U.S. flagged carriers when needed. 21st Century maritime domain components are highly interrelated, threats are increasingly asymmetric, and national security vulnerabilities are sufficiently exploitable, to mandate collective addressal of naval, commercial, and maritime infrastructure requirements.

## An Adaptive and Scalable Australian Air Domain Capability

### WORKING GROUP 8: DEFENCE ECONOMICS AND MANAGEMENT

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A significant increase in the generation and employment of effects within the air domain is required in order to deter a potential adversary. Australia's strategy of denial aims to deter any conflict to discourage potential adversaries from coercing Australia into conflict. In order to successfully implement the strategy of denial, the Australian Defence Force (ADF) needs to possess capabilities that have the potential to sow confusion and uncertainty of decisions by potential adversaries. Apart from existing capabilities, the ADF must also be more than a one-shot capability. The ADF must be able to optimise existing capability, draw upon all elements of national power to supplement existing capability, and have the capacity to adapt and scale capabilities in response to a rapidly changing character of war. This paper analyses the factors that form the basis of capability within the air domain, specifically the factors that influence a nation's Defence Industrial Base (DIB) such as: Economics; Governance and Regulations; Research, Development, and Innovation; Workforce; Manufacturing; and Raw Materials. Assessment is made of the strengths and vulnerabilities of the factors affecting Australia's DIB, using historical (WWII) and contemporary (MQ-28) Australian case studies, as well as a hypothetical future war scenario that reflects the current state of geopolitical and societal challenges. These examples enable recommendations to be made for the transformation of Australia's DIB to enable the generation and scale of capability within the air domain that present a deterrence effect on potential adversaries.



## Small Dogs Who Stare at Concept-to-Structure Chasms

### WORKING GROUP 8: DEFENCE ECONOMICS AND MANAGEMENT

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A future force concept (FFC) appears to be the panacea for any military stuck between insufficient means and a quickly changing environment. The FFC is perceived to provide not only a means to communicate the winds of change, but also as the starting point of the change process itself.

However, FFCs do not manifest themselves automatically. A concept-to-structure (CtS) process is needed. In the CtS process, the visionary thinking, bold ideas and numberless costs of the FFC clash with the harsh reality of legacy, finance and culture. The CtS process exposes the fact that a lot more spending than first anticipated is required in order to build the capabilities we already should have (enabling “fight tonight”) before the FFC can be built. This can be viewed as a proverbial chasm that somehow has to be crossed if the FFC is to ever manifest into a force structure. In addition, the CtS process evokes a struggle of resources between (and within) services.

Then, reality catches up with the FFC-CtS process as new “wars” emerge (as they always do). A new concept quickly has to be developed, before the chasm has been crossed.

As a result, most FFCs never fully manifests before they are either replaced by a new “paradigm” or are just put on the back burner (to manifest “as time and money allow”). But, if we subscribe to the idea that a FFC is the solution to manage tomorrow’s military problems, what could be done to overcome the chasm?

The most important effort builds on the view that a FFC consists of a system of systems (SoS), and that if a part of the SoS is removed, the FFC is no longer an entirety and therefore will not function as intended. The solution is to design the FFC as a scalable concept, rather than (what is commonly the case) as a smorgasbord.

In addition, any small dog with medium sized-dog ambitions needs to accept the fact that a bigger dog is at the steering wheel, a dog that can be wagged by its tail if enough attention is paid to contribution to his overarching FFC-process.

Finally, we need to confess to the fact that the military outcome space is very large. The only way to manage this fact is to procure and maintain systems that triumph any hand that the adversary chooses to play.

# Purposeful Military Capability Development Decisions: When is Who Responsible for Understanding What?

## WORKING GROUP 8: DEFENCE ECONOMICS AND MANAGEMENT

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Military capability development is a delicate matter, demanding difficult judgments between competing aspects from incomparable dimensions. Military technological utility must for example be weighed against ethical usage issues, global production capabilities against national security policies, and selection of capabilities against infrastructural demands and organizational footprints and training requirements, just to mention a few.

The understanding required for making insightful military capability development decisions is immense. It derives from virtually all academic areas, yet required also having the military perspective added which tend not to be the case in civilian research establishments. On top of this, national autonomy begins with the ability to independently make decisions and, thus, rests on continuous governing of sufficient national understanding. To the least, enough understanding must exist to allow for scrutiny of knowledge gained from or with others.

The diversity and independence requirements place an enormous burden on military oriented knowledge development and governance, which, for a relatively small nation implies further challenges. Although, on the one hand, being small might imply fewer entities to coordinate responsibilities between, which should benefit a holistic understanding. On the other hand, because the diversity appears size agnostic, the burden of governing necessary understanding becomes shared between fewer people. Being small seems both a curse and a blessing.

Clearly, the ideal but utopian answer to “when is who responsible for understanding what?” is that, “everyone always has a responsibility to understand everything!” However, such a homogeneously distributed state of fully enlightened national bliss is obviously unattainable, even for a relatively small nation. The challenging question then becomes: Which of these “everyone, always and everything” requirements are possible to relax, and if so, how, and with what consequences? While “always and everything” still is utopian, the present stance is that striving towards always understanding everything (relevant for military capability development) is an axiom. This means that the only acceptable relaxation is to distribute the responsibility for always understanding different aspects of everything between everyone.

This reflection aims to convey a number of insights and conceptual models supposedly helpful in identifying where the responsibility to understand what lies. These insights are based on personal experiences from coordination of science and technology (S&T) as well as research and development (R&D) for military capability development purposes at the strategic level within

the Swedish Armed Forces. Arguably, these are experiences exploiting the benefit of relative smallness for holistic understanding.

# Effects of Security Alliance Membership on Logistical Growth: A Nordic Case Study

## WORKING GROUP 8: DEFENCE ECONOMICS AND MANAGEMENT

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What happens when nations become members of security alliances? This paper argues that one of the main effects of such membership is the continuous growth and development of logistics capabilities. This study investigates the effects of security alliances such as the North Atlantic Treaty Organization (NATO) on the growth capability of member forces.

Reviewing extant logistics as well as military literature on outsourcing, and applying the Swedish and Finnish cases, the paper analyses the nature of the services provided by alliances that are critical to shaping the growth of its militaries. The study draws on the contemporary concept of clusters and party logistics as a means to further understand growth of members within the context of a security alliance such as NATO.

Mimicking the role of a fourth-party logistics integrator (4PL) in terms of innovation, information/knowledge sharing, specialization, etc., the alliance offers forces growth opportunities in times of crisis or war, as well as during peace times by emphasizing continuous commitment to the development of independent forces. This makes alliance members more effective individually. However, other complex and political security issues outside the realm of logistical growth, can remain unresolved.

Study results imply that, barring political and economic issues, logistics remain an important approach to growing independent military forces and consequently security alliances.

The study serves as a contribution to the on-going military growth puzzle in light of the Russia-Ukraine war. As such, the paper seeks to establish a theoretical basis for logistical growth as power within the military forces.

**Keywords:** Logistical growth, NATO, Nordic military forces, clusters, agglomeration, organic growth, inorganic growth.

# Managing Change While Scaling Up: Using Kotter's Eight-Stage Model for Change Management as a Roadmap for the Implementation of a New Rank System

## WORKING GROUP 8: DEFENCE ECONOMICS AND MANAGEMENT

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In a military organization under austerity, change management is easy. Regardless of the objective of the change at hand, the most important metric is staying within a decreasing budget frame. If unhappiness with a change initiative leads to personnel leaving the armed forces, that may be an undesired but metrically welcome outcome. During times of scaling up, this is no longer the case.

Military organizations are complex in respect to staffing. Compared to the civilian labour market, military matching is both monopolistic - only those with specific credentials can be employed as military personnel, and monopolistic - only the armed forces competing for the same personnel. Military organizations do, however, offer a tool that most companies lack: a hierarchical system where personnel can be acknowledged for their responsibilities or skills, thus making matching and human resource planning more efficient.

Such a hierarchical military personnel system is, by nature, rigid and difficult to change since comparability is one of its main properties. Making any major alterations, such as reintroducing a professional NCO corps after decades without, should therefore be well analysed beforehand and seen as a strategic change management project. A common approach for such projects is the eight-stage model, introduced by John P. Kotter in 1995. Originally formulated as a "how-not-to-do" guide, it has since evolved into a prescriptive guide on how to lead change.

We have used Kotter's model to examine the introduction of the two-tier, later three-tier, officer system in the Swedish Armed Forces. Acknowledging that not all factors were fully under the organization's control, all eight stages can in retrospect be seen as lessons on how not to do. Seen as most problematic was the lack of a communicated unifying vision (stages 3 and 4), created by a powerful guiding coalition (stage 2), which in turn led stakeholders in the organization to act unsynchronized (stage 5) or not at all. Few short-term wins were created (stage 6) and the sense of urgency (stage 1) was not sustained during the 15-year implementation period, where victory also was declared too soon (stage 7). Throughout, anchoring the change in the organizational culture (stage 8) was lacking.

Looking forward and learning these lessons, we offer reflections and opportunities for future major change projects as well as possible ways for decision makers to determine if the eight-stage model should be applied. Scaling up armed forces is changing management and should be done right.

# Military Capability Development – Perspectives on an Entangled ‘Ecosystem’

## WORKING GROUP 8: DEFENCE ECONOMICS AND MANAGEMENT

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With multiple, on-going wars and crises, near and further away, national security has perhaps never felt more difficult for nation states to obtain. Governments are facing numerous and pressing priorities to meet challenges and to deal with societal stress. Simultaneously, new technologies are evolving at an impressive speed in all domains and have few reasons to wait for governmental bureaucracy to keep up with the pace. To say that it is hard for small states to provide for and develop suitable defence capabilities today, is undoubtedly a gross understatement.

This presentation will not point to a single road ahead for defence acquisition and innovation to meet national security needs. Rather, the presentation aims to discuss the ecosystem of military capability: to consider the possible effects when military capability development is defined differently depending on the hierarchical level, what seems to make capability development thrive or shrivel, and what potential opportunities, and challenges lie ahead. The research and defence communities are naturally communicating vessels. Therefore, the presentation throws a wide net and draws from research in fields such as defence economics, military capability development and security studies as well as current discussions within different Swedish defence organisations.

A core argument in this presentation is that a more mosaic interpretation of military capability development is a facilitator for military strategists and policymakers. It has the potential to increase the relevancy of research and development as well as cultivating better communication with civilian enterprises and defence industries. Therefore, instead of honing in on disruptive technologies and radical innovation, we could gain from acknowledging the complexity of the ecosystem of ‘military capability development’ to promote new questions to emerge, leading into unfamiliar terrain, but also to fruitful debates. Still, does acknowledging and addressing this complexity promote a more agile defence acquisition ecosystem? Or will it lead us into a Byzantine labyrinth of messiness? The presentation aims to address the pros together with the cons.

# How Great Expectations in Tel Aviv are Dashed in Sderot: Can Public Policy Analysis Instruments Tools Analyse Military Sciences?

## WORKING GROUP 8: DEFENCE ECONOMICS AND MANAGEMENT

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One of the most important characteristics of the military sciences is its transdisciplinary; therefore, it is possible to analyse defence policy as one of the most essential public policies in any nation, as it aims to protect the sovereignty, territorial integrity and security of its citizens. Based on this statement, this article will answer the following question: How can public policy analysis mechanisms be applied when analysing a spectrum of defence policy?

The object of public policy analysis is the study of decisions made by the government, whether they are actions or absences, with the aim of solving problems. To this end, theoretical models have been developed which make it possible to understand the reality of the processes involved. In order to analyse the development of an agenda based on active defensive systems in the Israeli military transformation policy in July 2006, with the outbreak of the Second Lebanon War, we will use the instruments described by the Multiple Strings Framework model structured by John Well Kingdon. Highlighting the constituent elements of this model: dramatic events, policy windows, policy agenda-setting, problems and implementation of the decision. An effective defence policy involves the allocation of financial, human and technological resources to build and maintain the armed forces, which are responsible for ensuring the country's security. In addition, this policy also covers the formulation of guidelines for the acquisition of modern armaments, military training, strategic intelligence and cooperation with other countries. Through a set of strategies, plans and coordinated actions, defence policy aims to guarantee a nation's ability to defend itself against external threats, promoting peace and stability at both national and international levels. Therefore, it is considered that defence policy is essentially a public policy. With a qualitative emphasis, the analysis is methodologically based on the small-n case study. For a long time, the evolution of the scenario in which the Israel Defence Forces operate has been an indicator of change, studied by experts and national security agencies around the world.

The lessons learned from their experience stand out. These are of great interest for the analysis of broader military issues, such as the debate on military transformation itself or the interaction between force, technology and doctrine.

# The Three Seas Initiative from the Perspective of the Copenhagen School

## WORKING GROUP 8: DEFENCE ECONOMICS AND MANAGEMENT

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The Three Seas Initiative (3SI) is a form of regional cooperation established in 2016. It brings together 13 countries from the Central, Eastern and Southern European region and the Baltic states (Lithuania, Latvia, Estonia, Poland, the Czech Republic, Slovakia, Austria, Hungary, Romania, Bulgaria, Croatia, Slovenia and Greece). It was proposed by the then presidents of Poland and Croatia, who were aware of a report created by the American think tank Atlantic Council, 'Completing Europe', describing investment gaps and the resulting security risks. The article will analyse the 3SI from the perspective of the so-called Copenhagen School. This was developed by a team working under Prof. Barry Buzan and is readily used by international relations scholars to assess the international security environment. The article will analyse the security sectors and complexes and the issue of securitisation in relation to the countries cooperating under the Initiative. The Initiative also includes Ukraine and Moldova as participating partners and the US, Germany, the European Commission and Japan as strategic partners. This form of cooperation is of great importance for the security of the region, as it covers the energy, transport and digitalisation sectors.

The current areas of interest of 3SI are:

- (1) Economic growth and resilience of the 3SI region;
  - a) Geopolitics - in the context of current extremely violent geopolitical situation, it is crucial to have a platform for cooperation with a clear vision and aim to develop practical linkages among the nations;
  - b) Greater interest among investors - the countries have stood out for many years for their above-the-average rates of economic growth;
  - c) Energy security and the diversification sources of energy across the region, combined with transition to alternative energy and the creation of sustainable and resilient energy infrastructure is a high priority in the current geopolitical and economic environment;
  - d) Support to Ukraine to rebuild the country.

Nowadays, the meetings of 3SI take place in the form of: annual summits at the presidential level, business forums, local government forums and parliamentary forum. In 2020 the Three Seas Initiative Investment Fund, and in 2024 a new fund of 3SI was created to support the process of financing regional investments. These forms of cooperation demonstrate that 3SI can become a real actor in the security of the region.



# Hedging Fuel Price Risk in the Canadian Department of National Defence: An Exploratory Study

WORKING GROUP 8: DEFENCE ECONOMICS AND MANAGEMENT

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The objective of this paper is to investigate the application of private sector commodity hedging techniques within the Canadian Department of National Defence. While the existing literature predominantly delves into financial risk management in the private sector, this study fills a gap by exploring the potential for hedging in the public sector. The paper establishes a rationale for the relevance of hedging in the public sector, emphasizing its role in mitigating cash flow volatility, thereby enhancing budgeting and forecasting capabilities. By minimizing the size of fuel budget surplus or deficit at the end of the fiscal year, this approach enables a more optimal allocation of resources. Specifically, it reduces the likelihood of diverting funds from high-priority projects due to a deficit or allocating surplus funds to low- priority endeavours.

## Analysing the EDF's Financing Distribution Across EU Countries: What Drives National Participation in Defence-Industrial Integration Projects?

WORKING GROUP 8: DEFENCE ECONOMICS AND MANAGEMENT

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The establishment of the European Defence Fund (EDF) represented a significant shift in the approach of EU member states towards defence industry integration as it aims to systematically promote inter-European defence-industrial cooperation across entire national defence sectors. However, there is a lack of empirical evidence about the actual dynamics behind the EDF implementation. Although there are accounts of EU countries' positions on defence-industrial integration, it remains unclear whether member states' actual participation in integration projects aligns with these positions. Do national motives stay the same, once integration has begun? What drives national participation in EDF projects? New data on the per-country distribution of EDF funds (2021-2022) allows for analysing short-term systematic patterns in defence-industrial integration dynamics across EU member states. The findings indicate that neither strategic culture nor market size correlates with EU members' participation in EDF projects. Instead, a country's institutional quality plays a significant positive role. Additionally, economic freedom, employed as an indicator of the liberal industrial-capitalist regime, is negatively associated with participation in EDF projects. These results highlight the institutional dimension of the Fund, which may both reinforce and challenge national best practices.

# Working Group 9: Professional Military Education

## Working Group Chair:

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# European and North American Perspectives on Developing Critical Thinking in Military Education

## WORKING GROUP 9: PROFESSIONAL MILITARY EDUCATION

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Centre for Leadership and Ethics, Naval War College, USA

Members of the military humanities groups in Scandinavia are proposing a roundtable on the theme of critical thinking for the upcoming ISMS 2024 conference in Stockholm. Critical thinking is hailed as a vital skill for the military professional, particularly as a way of managing the complexities, uncertainties, and rapidly shifting dynamics of conflicts and warfare in the 21st century. In a range of professions, there is now a rising awareness of the key role the humanities have in developing transferable skills such as critical thinking. The United States Military Academy at West Point is among the schools that are offering courses in critical thinking. This roundtable explores the role of the humanities in developing critical thinking in military education, while addressing questions of how this field can develop with the expansion of military educational programs.

Together, we will present diverse perspectives on what the humanities are and what they can offer professional military education, in terms of both theoretically sound starting points and practical applicability. The panel includes a variety of humanities disciplines and scholars from North America and Europe. By highlighting both similarities and differences influenced by country and discipline, we seek to underscore the importance of embracing varied viewpoints while striving to establish a unified understanding of the humanities' contributions to developing critical thinking through military education.

Presenters and titles of their respective 5-minute talks

Kyrre Tromm Lindvik (NATO Special Operations University, Belgium). "Narrative and Resilience: A Humanities Approach"

Danic Parenteau (Royal Military College Saint-Jean, Canada). "Academic freedom and the education of officers"

Montgomery McFate (Center for Leadership and Ethics, Naval War College, USA). "situational analysis and suspension of judgment"

Kjetil Enstad (Norwegian Military Academy, Norway). "Military professional studies and the humanities"

Anne Marie Hagen (Norwegian Defence University College, Norway). "Utilizing literature to develop reflective military leaders"

Point of Contact and panel moderator: Michaela Vance

## Before 'Skynet': Cultivating Digital Phronesis in Canadian Military Professional Development Programs

### WORKING GROUP 9: PROFESSIONAL MILITARY EDUCATION

Anne Reiffenstein  
Doctoral Student, Royal Roads University

As artificial general intelligence transitions from science fiction, exemplified by 'Skynet' in James Cameron's 1984 iconic Terminator movie, its potential to redefine the modern battlefield becomes increasingly more significant. With the rapid advancement of technology, the Human-Machine Interface (HMI) in a warfighting context is changing, and the use of technology, including artificial intelligence, robots, and autonomous weapons systems, will reshape battlefields in the near future. Canadian military professional development programs must evolve to prepare leaders for these new technological landscapes. A digital phronesis – a practical wisdom that is informed by both experience and ethics is required. The Canadian military professional development curriculum must evolve to include digital education while providing leader development oriented to the 21st century.

Leaders in a digital age are expected to exercise sound judgment in technologically enabled information realms, to ask the right questions about employing technology to the technical experts and to discern the second and third-order effects of the employment and use of technology. I propose that this will require digital phronesis. Utilizing a concept analysis and a constructivist approach to adult learning, a Canadian military professional development framework could integrate digital phronesis into professional development, ensuring leaders can effectively exercise judgment concerning technology with ethical and strategic insight.

This presentation will explore the three functions of digital phronesis: fostering digital ethics within military contexts, military leadership in the digital age, and digital literacy as it relates to openness to technological adoption and innovation. This analysis sets the groundwork for integrating digital phronesis into military education and training and proposes future research to refine and expand this military professional development framework. By emphasizing the role of human judgment and ethical considerations in the HMI, this framework not only prepares military leaders for technologically advanced battlefields but also ensures that, unlike the fictional scenario of 'Skynet,' technology enhances rather than overrides human decision-making capabilities.

# Researching Wargaming in Military education: A Call for Concerted Efforts

## WORKING GROUP 9: PROFESSIONAL MILITARY EDUCATION

Björn Sjöblom  
Swedish Defence University

Wargaming is an important and integral part of military education. The exclamation “This is not a game at all! This is training for war” is attributed to general von Muffling when being shown von Reissewitz Kriegsspiel in 1824, and has served as a foundational tenet in the legitimization of wargaming as an efficient method for training officers in various aspects of warfare.

Some 200 years later, wargaming has been established as a practical method for teaching and training in officer education, and is widely used. However, research on educational wargaming as part of military education is still very scarce, and much of what there is lacking in several respects. Wargaming-based learning (WGBL) is severely understudied, and giving this field a more substantial foundation in research could give large returns – there are, so to speak, large white spots on this map to explore.

The presentation highlights four key areas through which research on wargaming-based military education can be established as significant subfield in research on military education.

**Empirical research:** Efforts should concentrate on empirical research, both quantitative and qualitative, in experimental as well as naturalistic settings. Effects of WGBL are poorly understood, and high-quality empirical research is necessary to establish evidence-based knowledge of how wargaming can support military education.

**Interdisciplinarity:** Research on WGBL should engage much more closely with related but underutilized fields of study. This means emphasizing the connections to research in pedagogy in general, as well simulation-based learning specifically. Additionally, game studies and studies of game-based learning are both substantial research areas that could support research on wargaming to a much higher degree than what is currently being done.

**Transparency and openness:** Research needs to be made publicly available and shared in research communities. Research on WGBL should strive to publish in open and peer reviewed channels, rather than shrouding findings in classified reports directly for armed forces.

**Consolidation:** The fledgling research community of WGBL should establish forums specifically geared towards this subject. This includes establishing recurring conferences and symposia, as well as a peer reviewed journal.

While there are efforts underway in all of these areas, intensifying these will enable a rapid growth of the knowledge base of WGBL. This in turn promises to put the already well-established practice of wargaming in professional military education on much more solid ground.

## Digitalisation of Professional Military Education: Two Case Studies of VLE Transformation in the RAF

### WORKING GROUP 9: PROFESSIONAL MILITARY EDUCATION

Chris Morris

Portsmouth Military Education Team, University of Portsmouth, United Kingdom

Harry Richards

Portsmouth Military Education Team, University of Portsmouth, United Kingdom

Tom Smith

Portsmouth Military Education Team, University of Portsmouth, United Kingdom

Veronika Poniscjakova

Portsmouth Military Education Team, University of Portsmouth, United Kingdom

The Portsmouth Military Education Team (PMET) delivers Professional Military Education (PME) to the Royal Air Force (RAF) as part of its second successive long-term contract with the RAF to design and deliver education packages.

The article delves into the purpose of PME, the challenges faced by the PME in the UK, and most importantly, it explores the shift towards blended learning and the benefits and issues it entails.

The article presents two case studies illustrating the PMET's journey with the digitalisation of education for the RAF.

The first case study looks at how PMET designed and delivered the United Kingdom's first blended learning course for phase one training, in 2020.

The second case study explores PMET's revamp of the VLE in 2024, prompted by student feedback highlighting challenges with VLE engagement, which led to gaps in prerequisite knowledge and diminished learning outcomes. This comprehensive overhaul, guided by active blended learning principles and pedagogic best practices, aims to streamline VLE content, enhance flexibility, and foster critical thinking skills. The redesign process involves reducing the volume of online material, delivering content in a more streamlined manner, and revising assessment methods to incentivise engagement.

Through these case studies, the article illustrates the iterative nature of educational innovation within the PMET, highlighting the PMET's commitment to continuous improvement and excellence in military education.



# Addressing the Digital Deficit in Professional Military Education

## WORKING GROUP 9: PROFESSIONAL MILITARY EDUCATION

Chris Morris  
University of Portsmouth

Veronika Poniscjakova  
University of Portsmouth

Digital technology now permeates the military environment and represents a vital component of organisational effectiveness. Whilst demand for digital skills is rising, military institutions now have to contend with falling digital literacy amongst the general population and increasing competition when recruiting for specific technology roles. This can present a range of challenges, complicating both individual development and force effectiveness. This article aims to address this challenge from the perspective of educators. Specifically, the article will focus on how digital skills are contextualised across the UK's military learning environment, and how the process differs from other education settings. This will be accomplished by a critical examination of relevant doctrine and practice.

A key aim is to identify how digital and information-related skills can be incorporated into professional military education effectively, and to what extent this may help address the growing deficit in digital skills and awareness. The importance of using professional military education to enhance digital skills will additionally be discussed, as well as the challenges presented by changing organisational needs.

# A Visible and Clear Learning Progression for Professional Military Education

## WORKING GROUP 9: PROFESSIONAL MILITARY EDUCATION

Emma Björnehed  
Swedish Defence University

Lars Wikman  
Swedish Defence University

The development of each individual students' competence in tactics is central to professional military education. In this presentation we introduce the concept of progression area, which is defined as a partial knowledge area with clear pathway to accumulative learning through each stage in a joint professional military education. In the process of defining progression in tactics in officer's education, six progression areas were inductively identified: command, military theory, technical systems, military geography, functions and the adversary. In this presentation we focus on two progressions areas; command and the adversary, to illustrate the learning progression in tactics for the officer's program at the Swedish Defence University.

# Shaping Our Future: Reflections and Recommendations on Professional Military Education at the Royal Military College of Canada

## WORKING GROUP 9: PROFESSIONAL MILITARY EDUCATION

Isaac Nitschke  
Canadian Armed Forces

With the recent publication of Justice Louise Arbour's report that questioned whether Canada needs the Royal Military College of Canada (RMC) as it currently exists, and included a recommendation to eliminate the cadet chain of responsibility, there has been serious debate on how professional military education (PME) is to continue in Canada. PME is a cornerstone of force generation in Canada, this paper will set out to identify issues with the current model. Next, it will identify the requirements of junior leaders in the contemporary global environment, as set by global trends and Canada's strategy Our North, Strong and Free. Finally, it will provide potential solutions to these issues by drawing on personal experience and best practices by other military academies and universities. This paper concludes that PME in Canada should restructure some elements of its program to deliver better training in ethics and international affairs and should promote activities involving collaboration and outreach with allies and partners. In addition to this Canadian PME should seek to expand the military training providing relevant experience for cadets. This fits into a larger body of literature that discusses PME in Canada, and fits into the larger discourse on the continued existence of the military colleges in Canada. Additionally, it fits into the discussion of the form and function of military education both in Canada and globally. In doing this assessment from an internal perspective we find ourselves in a better understanding of the structure and a better understanding of the requirements of military college graduates.

## Between Dogmatism and Scepticism: Taking Stock of Professional Military Education in Scandinavia

WORKING GROUP 9: PROFESSIONAL MILITARY EDUCATION

Jan Angstrom  
Swedish Defence University

How should one balance the need for teaching obedience with the need of teaching critical thought within professional military education in order to foster a modern officers corps? In this paper, I demonstrate that there is empirical variation of how to navigate between dogmatism and scepticism. In particular, despite opting for the same, broad soldier-scholar ethos and despite great similarities of educational traditions, strong states, liberal values, and a shared strategic history of being small states in between three major powers to the south (Germany), the West (Britain and the US) and the East (Russia), the three Scandinavian countries – Denmark, Norway and Sweden – have chosen three different solutions to their officers' education. By investigating the contents of the officer education in Scandinavia (syllabus and course curriculums), I re-create what can be termed three manifestations of officer ideals. In Denmark, the ideal officer is an "armed servant", in Norway the "architect of violence", and in Sweden the "manager of violence". This is not necessarily a difference in kind, but rather in degree. All of the educational systems aim for the overall soldier-scholar ethos – as opposed to what we can call an old warrior-ethos.

# From Battlefield to Classroom: Incorporating War Games and Staff Rides in Professional Military Education (PME) to Enhance Urban Combat preparedness

## WORKING GROUP 9: PROFESSIONAL MILITARY EDUCATION

Jonas Björkqvist

Land Operations Division, Department of War Studies, Swedish Defence University, Sweden

Mikael Weissmann

Land Operations Division, Department of War Studies, Swedish Defence University, Sweden

This proposal explores the integration of war games into staff rides, emphasizing their pedagogical value in military training. War games and staff rides serve as dynamic tools to bridge historical insights with contemporary military strategies, offering a comprehensive learning experience that is both immersive and reflective of real-world conditions. By engaging participants in simulations that draw on historical battles within current military contexts, these exercises foster a deeper understanding of tactical decisions and strategic outcomes.

This submission explores the integration of war games and staff rides in urban operations training. Urban environments pose unique challenges in modern warfare, necessitating innovative training methods that can effectively prepare military personnel for complex urban operations. The proposed submission will explore the use of war games and staff rides using a multi-dimensional approach to simulate combat in urban environments. These dimensions incorporate a variety of urban settings from single houses, small towns to dense urban terrain, reflecting the diverse environments soldiers may encounter.

The methodology builds on the traditional structure of staff rides, which are enhanced by the inclusion of war games. These components are specifically tailored to reinforce lessons from past conflicts, while simultaneously addressing modern military challenges. The submission will discuss the development and execution of these enhanced staff rides, outlining their benefits in terms of participant engagement and learning outcomes.

The Battle of Ortona 1943 will be used as a case study, showing a way to capture four perspectives on operations in urban terrain by integrating staff rides and war game methods. This includes the presentation of a war game to be used in connection with a staff ride to Ortona. This way the submission aims to demonstrate how the strategic incorporation of war games and staff rides can significantly enrich military education. By providing a hands-on approach to learning that emphasizes active participation and critical thinking, these tools help cultivate a deeper understanding of military tactics and decision-making processes. The ultimate goal is to prepare military personnel for the complexities of modern warfare through a pedagogically sound, historically grounded, and tactically rich training environment.

## Informal Learning: An Under-Documented Contributor to Defence Capability

WORKING GROUP 9: PROFESSIONAL MILITARY EDUCATION

Matthew Malcolm  
Australian Defence Force

While informal learning is widely recognised as important in civilian educational circles, with growing attention given to its distinctive educational benefits, its contribution in military settings is sorely under-documented. This is despite the fact that informal PME providers - both internal and external to militaries - are experiencing a significant and growing level of engagement from military members. 'Informal PME' is here understood to be PME that does not contribute to military or civilian accreditation. This presentation offers analysis of the role of informal PME in the army of one democratic nation, drawing on surveys and interviews with PME providers as well as army members from the level of Private to Three-star General. It considers the unique contributions of informal PME to military capability, discusses its relevance for scalability, and reflects on how this area of learning could be better tracked by policymakers of military education.

# Integrating Practical Assessments in Professional Military Education (PME): A Constructive Alignment Approach

## WORKING GROUP 9: PROFESSIONAL MILITARY EDUCATION

Mikael Weissmann

Land Operations Division, Department of War Studies, Swedish Defence University, Sweden

This paper proposes an innovative framework for practically examining military cadets and officers within higher education settings. The proposed model integrates learning objectives with practical learning activities and examination, aiming to achieve constructive alignment in practice while assessing practical elements in military education without compromising fairness, transparency, and adherence to established legal standards and academic regulations.

The study addresses a gap in traditional education, which often relies on written examinations that do not fully evaluate the practical competencies required in military professions. Instead, our framework emphasises practical examinations that mirror real-world challenges and require cadets to demonstrate their skills in scenarios such as staff rides, battlefield studies, war games, and TEWTs.

The methodology includes a detailed examination of current pedagogical approaches and adapts them to military professions' dynamic and practical nature. Focusing on staff rides and war games, the study critically evaluates traditional examination formats and introduces alternative practical assessments tailored to real-life military demands.

Key findings indicate that integrating practical examinations into military education significantly enhances the alignment of educational objectives with professional military requirements. This alignment ensures that cadets acquire theoretical knowledge and develop the essential competencies required to lead in combat and other complex military operations. The proposed model aligns with educational goals and fosters pedagogical activities and assessment methods that are directly relevant to military settings.

The implications of this study suggest a shift towards more practical and scenario-based assessments that can better prepare military officers for the realities of their roles. The model presents a significant advancement in military education, potentially influencing other military training institutions to reconsider and revise their examination strategies to include more practical elements.

This abstract outlined the framework's potential to transform military education by providing a more accurate assessment of theoretical knowledge and practical skills, ultimately contributing to developing well-rounded military leaders capable of adapting to and excelling in a rapidly evolving global security landscape.

## Wargaming Tomorrow's Threats: Educating Through Red Teaming Simulations

### WORKING GROUP 9: PROFESSIONAL MILITARY EDUCATION

Tali Stambulchik  
Wikistrat

In today's rapidly evolving landscape of security and strategy, simulations used for red teaming can be a game-changer.

They help us get ahead of threats and gain unique insights on the various actors and forces at play by stress-testing our strategies, promoting critical thinking and sparking in-depth discussions from a multidisciplinary perspective.

Through a gamified immersive experience, participants dive deep into complex global situations, enter the shoes of global leaders and get a real feel for the weight of each decision.

In a lecture by the Chief Marketing Officer of Wikistrat, we will explore different case studies of red teaming simulations, including:

"Putin Goes Nuclear": A what-if scenario of Russia launching a nuclear attack on Ukraine, exploring how the world might react and the ripple effects of those choices. It's a raw look at how fragile international peace can be and the fallout of going on the offensive.

"When Israel Strikes Iran": A simulation that puts us right in the aftermath of Israel hitting Iran's nuclear spots in three different scenarios, each observed from the perspectives of five key players and their unique dilemmas in the new geostrategic environment.

"China's Cross-Strait Strategy after the Ukraine Crisis": A simulation that took place in the days prior to Russia's invasion of Ukraine. The exercise explored how the tension and global reactions to the Russia-Ukraine situation could reshape China's moves toward Taiwan, and provided an important lesson on how major events elsewhere can shift strategies close to home.

Wikistrat is a consulting firm that provides clients with unique insights based on the collaborative analysis of subject-matter experts. Since 2009, we have run over 500 tailor-made, interactive simulations that use gamification to promote engagement, creativity, and collaboration among the participants.



# Embracing Digital Transformation in Professional Military Education: Maintaining Relevance, Resilience, and Success

## WORKING GROUP 9: PROFESSIONAL MILITARY EDUCATION

William Combes  
Baltic Defence College

Military education faces a challenge. The concept of digital transformation, the adoption and integration of digital technologies to enhance learning, operations, and capabilities, is evolving as fast as the underlying technologies that support corporate, education, government, and military institutions' professional practice. An innovative and adaptive evolution is needed to ensure the relevance, resilience, and success of any organisation's underlying vision, mission, and goals. This paper explores how professional military education institutions should leverage evolving technologies to improve educational outcomes to create innovative officers capable of excelling in the current technological environment characterised by the rapid evolution of emerging and disruptive technologies and hypothesises that they must embrace this transformation proactively.

For the North Atlantic Treaty Organisation (NATO), digital transformation is characterised by the concepts of multi-domain operations, the use of advanced analytics and artificial intelligence to enhance situational awareness, information awareness and decision-making, and fostering innovation and agility by promoting a digital culture and mindset. Educational institutions are pursuing the responsible use of technology and artificial intelligence to tailor and improve educational outcomes, reach broader audiences, and improve faculty capability and efficiency. Military education institutions must do the latter while educating on the former, challenged by the reality that both transformations are mostly conceptual and applicable technological advancements are developing so rapidly.

The research will combine a conceptional analysis of NATO military digital transformation and digital transformation at education institutions with a comparative analysis of current, planned, and possible contemporary institutional transformation efforts in order to identify potential strategies to successfully incorporate emerging technologies into professional development and educational requirements in order to deliver relevant and timely military education. In other words, recommendations to enable professional military education institutions to develop faculty and students who are comfortable and skilled with the innovative, ethical, and secure use of technological advancements, including artificial intelligence, in the military domain.

The research's findings are expected to identify extensive and continuous operational experimentation with new technologies, and the wide dissemination and sharing of innovative best practices and lessons learned will be necessary to ensure a successful digital transformation and the relevance, resilience and success of military education institutions and their alumni.



# Working Group 10: Military Strategy

## Working Group Chairs:

Dr. Jānis Bērziņš; National Defence Academy of Latvia

Dr. Lukas Milevski; Leiden University

## Co-chairs:

Viktoriya Fedorchak; Swedish Defence University

Thomas Pankratz; Austrian National Defence Academy

# China's Growing Global Power Projection

## WORKING GROUP 10: MILITARY STRATEGY

Adam Buschard

The Chinese Peoples Republic (CPR) has within the past decades undergone a change in economic size, production capacity and political importance where the Chinese potential as a global power is rapidly developing. The Peoples Liberation Army (PLA) has expanded its purpose from a guerrilla army created to liberate the Chinese mainland and subsequently defending its territory, to a modern military force able to fight in multiple domains. During the 2015 reforms of PLA President Xi outlined the purpose and ambitions of the modern PLA. Initially he called for a general restructure of the PLA, with an ambition to create a modern “world class military” (Wuthnow & Al, 2021). Furthermore, President Xi stated the general purpose of the PLA as being:

- (1) Securing the Chinese Communist Party’s control of the Chinese state.
- (2) Protecting Chinese territory from foreign aggression.
- (3) Securing Chinese interests globally (US DoD, 2023).

The Peoples Liberation Army Navy (PLAN) has, in line with the rest of the PLA undergone steps to expand and modernize the force having established a very large fleet measured in number of combat units. It is in that regard interesting to see the development of the PLAN carrier capacity. The latest produced Chinese carrier the Fujian is expected to be operational this year. The carrier is developed out of the same principles as the largest US carriers with an extensive array of capacities involving airpower. The Fujian will enable the Chinese government to extend air power at a much more global scale which in turn will be an important capability when utilizing military power in order to protect national interests. How will China adapt its foreign policy when enabled with global military presence? My presentation will focus on the Chinese development of specific military capabilities in order to further strengthen their global power projection, and the implications on Chinese foreign policy.

US DoD (2023, October 19). Report on the Military and Security Developments Involving the People’s Republic of China (CMPR). US Department of Defence. <https://media.defense.gov/2023/Oct/19/2003323409/-1/-1/1/2023-MILITARY-AND-SECURITY-DEVELOPMENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA.PDF>

Wuthnow, Joel; Ding, Arthur S.; Saunders, Phillip C.; Scobell, Andrew; Yang, Andrew N.D.; Chen, John; Cheng, Dean; Chieh, Chung; Green, Kieran; Gunness, Kristen; Kardon, Isaac B.; Lin, Ying-Yu; McReynolds, Joe; Victor, Jonah; and Yamaguchi, Shinji, "The PLA Beyond Borders: Chinese Military Operations in Regional and Global Context" (2021). Books and Book Chapters. 1. <https://digitalcommons.ndu.edu/books-and-book-chapters/1>

# Cognitive Resistance

## WORKING GROUP 10: MILITARY STRATEGY

Andreas W. Mmag  
Austrian Ministry of Defence

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The war events in Eastern Europe, especially since February 2022, have shown us that peace cannot be taken for granted. Rather, peace must be seen as an enormous cultural achievement that has to be elaborated on an ongoing basis. Opponents of the “Western” understanding of values are flooding the West with attacks in cyberspace, subversive elements, sabotage, and terrorist attacks as part of hybrid warfare. And in Europe, governments are slowly beginning to realize that something must be done to counter these attacks - that it has become necessary to give greater priority once again to the immediate defence of the country.

A significant part of the enemy's hybrid activities is carried out within the framework of so-called “cognitive warfare”. This aims to use psychological measures, propaganda, disinformation, and smear campaigns to weaken the ability of the Western world to defend itself in order to ultimately destabilize democratically legitimate states to such an extent that the aggressor can seize power as cheaply as possible and military operations only have to be carried out to occupy the target country without bloodshed.

And the West's opponents have already done a very good job of this cognitive warfare. If you look at surveys that have been conducted on the willingness of Western countries to defend themselves, we will find that this willingness, especially among the younger generation, is at an all-time low. For example, a study conducted by the University of Innsbruck in spring 2024 found that only 14% of Austrians would be willing to defend the country. Surveys in other European countries show similar attitudes.

However, it is not enough to simply take defensive measures against cognitive attacks, i.e. to strive for defence in the cognitive sphere. Instead, a will to defend must be created within the population. People must have internalized the value of a democratic form of society, they must be aware that they will lose their rights and freedoms if they continue to let themselves go like this. And they must realize that there are powers that want to take these very rights and freedoms away from them.

A nationwide strategy and concrete measures are therefore needed to increase the willingness to fight back. A “cognitive resistance” is needed! The military in particular can make valuable contributions and take targeted measures. It is high time and we should therefore start quickly.

# Dynamics of National Security Strategy. Modelling the Interactions between Variables of National Power

## WORKING GROUP 10: MILITARY STRATEGY

Augusto Figueiredo  
Military University Institute, Portugal

The diversification and increased complexity of the Instruments of National Power, as key elements that must be orchestrated in a holistic fashion to ensure the basic functioning of all sectors of a thriving society, represent a considerable challenge. This difficulty in understanding how interactions occur with multiple elements usually leads to oversimplified explanations and solutions to complex problems. National Security Strategies and related processes aren't immune to this context, as exposed by Kerbel urging for more adequate approaches to cope with complexity. As Forrester mentioned, "the human mind is not adapted to interpreting how social systems behave", thus requiring the adoption of methods that capture the essence and underlying mechanisms of complex systems (Forrester, 1971). Therefore, the problem set that this research aims to study is the behaviour over time of National Security as a complex system, resulting from the interdependencies of different variables of National Power, which requires Strategy formulation to steer towards a more favourable end-state.

There are two main dimensions to this problem set deriving from the literature review that shape the formulation of the Research Question, the Subsidiary Questions, and the methodologies selected to answer those questions. The first dimension is of a conceptual nature. The very notion of National Security is evolving and is perceived differently among multiple nations, generally lacking a scientific approach and sufficient empirical data analysis (Baldwin, D. A., 2000). The second dimension relates with the complexity involved in both the interactions of elements that are part of the National Security system, but also in the complexity of the strategic environment in which nations fight for their interests, described by Yarger as an "interactive, chaotic, complex system of systems" (Yarger, 2006). This setting renders any attempt to extrapolate or foresee the future a daunting task. As argued by Murray et al. (2011, p. 5), the formulation of Grand Strategy requires an aptitude and ability to think about the future: "Yet, those who have been most successful at its practice have also recognized that the future is not foreseeable and consequently have been willing to adapt to political, economic, and military conditions as they are rather than as they wish them to be".

The main objective of this research is to create a Model of National Security for Strategy formulation, simulation, monitoring, and related conceptual framework, recurring to System Dynamics methodologies.

Baldwin, D. A. (2000). *National and international security*. Routledge.

Forrester, J.W. Counterintuitive behavior of social systems. (1971). *Theor Decis* 2, 109–140  
<https://doi.org/10.1007/BF00148991>

Yarger, H.R. (2006). *Strategic theory for the 21st Century: The little book on big strategy*. Strategic Studies Institute, U.S. Army War College.

# The Russian Semi-Privatization of War: The Case of Wagner in Ukraine

## WORKING GROUP 10: MILITARY STRATEGY

Emmanuel Kargiannis  
Department of Defence Studies, King's College London

After more than two years of war, it is possible to assess the Russian semi-privatization of war in Ukraine and draw valuable lessons for the future. Since the summer of 2022, a very large number of Russian and foreign mercenaries have joined the regular Russian army in fighting the Ukrainian army in Donbass and elsewhere. The partial “privatization” of the war is an innovation in itself that has to be examined analytically. During the tsarist period, the army was under strict surveillance because officers were the only ones who could challenge the regime. In the Soviet era, the role of the political commissar was to enforce political control over the military through his presence at the strategic and operational levels. The use of private military companies, such as the infamous Wagner, runs counter to Russian military culture that prioritizes political control of the military. However, mass mobilization is neither desirable nor feasible in a middle-class country like Russia. The use of mercenaries allows Moscow to hide casualties from the Russian public opinion that does not massively support the war in Ukraine. The Wagner’s force functioned as a small army capable of operational and tactical support when was needed before the Prigozhin Mutiny in June 2023. The paper examines how the use of Wagner mercenaries in Ukraine has influenced both Russian strategy and military culture during 2022-2023.

# The Role of Armed Forces in Migration Contexts: A Literature Review from the Brazilian Army Command and General Staff School

## WORKING GROUP 10: MILITARY STRATEGY

Gustavo Simões  
Brazil Army Command and General Staff College

The study titled "The Role of Armed Forces in Migration Contexts: A Literature Review from the Brazilian Army Command and General Staff School" aims to investigate the utilization of armed forces in migration scenarios, focusing on works produced within the Brazilian Army Command and General Staff School. The research question delves into understanding how armed forces have been involved in migration contexts, as evidenced by the theses, dissertations, and final papers from the institution.

Employing a literature review methodology, the study scrutinizes relevant documents from the archives of the Brazilian Army Command and General Staff School, with selection criteria focusing on works related to migrations and armed forces' involvement. Data collection includes profiling works, analysing abstracts, evaluating methodologies used, examining studied themes, and understanding theoretical frameworks employed. The analysis is qualitative in nature, aiming to uncover patterns, trends, and perspectives within the literature.

The general objective is to provide a comprehensive review of existing literature regarding armed forces' roles in migration contexts, specifically within the Brazilian Army Command and General Staff School's research output. Specific objectives include identifying the breadth of research in this area, assessing methodologies' effectiveness, exploring themes and theoretical frameworks, and pinpointing any gaps in the literature.

Preliminary observations indicate a growing interest in the role of armed forces in migration contexts within the academic community associated with the Brazilian Army Command and General Staff School. The literature review reveals diverse research approaches, encompassing both qualitative and quantitative methodologies. Explored themes range from logistical challenges in providing humanitarian aid to migrants to broader geopolitical implications of migration crises. Additionally, there is significant engagement with various theoretical perspectives, including international relations theories and sociological frameworks.

However, the study acknowledges the need for further analysis to achieve a comprehensive understanding of the current state of research in this field. This includes identifying emerging trends and addressing any gaps in the literature.



# Air Power and Conflict: Lessons from the Ukrainian Air Force

## WORKING GROUP 10: MILITARY STRATEGY

Oleksii Shulha

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In the prelude to the Russian invasion of Ukraine, many experts expected a fully mobilized Russian Aerospace Forces to quickly establish complete air superiority over Ukraine. In March of 2022, a New York Times report noted that “one of the biggest surprises of the war in Ukraine is Russia’s failure to defeat the Ukrainian Air Force. Military analysts had expected Russian forces to quickly destroy or paralyze Ukraine’s air defenses and military aircraft, yet neither has happened.”

The enemy's use of long-range air-to-air missiles creates additional risks of damage to aircraft and flight crews by this class of missiles. The peculiarity of being hit by missiles is that the crew does not detect missile launches and does not perform anti-missile maneuver. The missile is also very poorly detected by radars, given its high speed, so the command to crew from JTAC or ATC may not arrive on time.

There are some problems Ukrainian Air Forces trying to solve:

- (1) The enemy's long-range air-to-air missiles hard to detect without sophisticated equipment in detecting launches and tracking long-range air-to-air guided missiles;
- (2) Sabotage groups in the depths of our combat formations, which excludes guaranteed safe zones for the use of air defense systems can also be a problem that should be avoided and;
- (3) The lack of modern effective onboard defense systems on airplanes and helicopters increases the likelihood of enemy damage to aircraft.

There are some recommendations from the battlefield:

- (1) Aircrews should calculate and execute anti-missile maneuvers such as "spatial snake" etc. with turn away from the combat course;
- (2) When returning to the military base, constantly perform anti-missile maneuvers with warning the air traffic controller about the maneuvers;
- (3) Ensure continuous communication between the UAVs and strike group crews at all stages of their combat missions.

To sum up, military personnel should carefully learn both positive and negative war lessons to avoid losses in the future and use their obtained experience for professional excellence.

# Analysis of the Conditions of Combat Operations of the Ukrainian Air Force's Tactical Aviation during the Russia-Ukraine War

## WORKING GROUP 10: MILITARY STRATEGY

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Tactical aviation is a highly mobile and technological component of the air force of in the Ukrainian Armed Forces. Which, is, and will remain one of the main tools for deterring any military aggression against Ukraine. The conditions for the combat use of tactical aircrafts are primarily influenced by the enemy's conduct of warfighting systematic combat operations using tactical aircraft, cruise and ballistic missiles, and strike UAVs within the entire depth of Ukrainian territory.

Characteristic features of the enemy targeting using attack air capabilities are:

- Combined missile strikes with the simultaneous use of various types of cruise and ballistic missiles from different directions to hit objects within the entire depth of Ukrainian territory;
- Delivering single (group) strikes with a focus on a specific target (several targets in the same area).

Besides the continuous presence of numeric advantage, the paper also addresses various modernisations of the enemy capabilities and their impact on the conduct of air operations by the Ukrainian Air Force. Some of the discussed developments in the enemy warfighting can be summarised as follows:

- Increasing the enemy's use of swarms of relatively cheap drones to hit air defence systems and airfields throughout the entire territory of Ukraine;
- Increasing intensity of using operational-tactical ballistic missiles and S-300/400 air defence missiles at a distance of up to 150 km;
- Combat actions of the enemy aviation from the depth of the enemy-controlled territory by using guided air missiles with a range of 250-350 km and air bombs equipped with a universal planning and correction module (UMPC) to a depth of 30-40 km and;
- Launching of missile strikes by ballistic and cruise missiles from air, sea, and ground bases.

Per the above conditions, the paper discusses the following critical capabilities required for the tactical aviation of the Ukrainian Air Force of the Armed Forces of Ukraine:

- (1) Conducting aerial reconnaissance (pre-reconnaissance) of radio-contrast ground targets with their simultaneous destruction
- (2) Detection and destruction of air targets at a range of up to 160 km across all altitudes, including low-speed targets such as helicopters and UAVs, to provide cover for ground troops
- (3) Participation in the creation of a continuous, echeloned strike zone aiming to destroy enemy attack aircraft (Su-34) before the lines of dropping planning (guided) aerial bombs (UMPC)

- (4) Countermeasures (air combats) against Su-35 aircraft with an onboard radar range of 200-250 km and the fight against operational-level cruise missiles and attack UAVs.

## Methodology and Studying Strategy Sensibly

### WORKING GROUP 10: MILITARY STRATEGY

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Strategic studies lack a text which explores how actually to study strategy sensibly, a text which would not only explore strategy conceptually but then also link it to other key research design topics, such as the purposes of research, theory-building, and methodology. This article aims to address the methodology part of this gap in the literature.

Qualitative and quantitative methodologies reflect two different research cultures, their fundamental difference being their respective research orientations: “causes-of-effects” (CoE) and “effects-of-causes” (EoC). Alongside CoE one can also add interpretive perspectives. This article explores both cultures in terms of what forms of thinking they reflect and what kinds of strategy-relevant questions they can, or cannot, answer.

EoC research tends to fall into one of two categories: quantitative or structuralist. Quantitative methodologies try to reduce war, warfare, and strategy to numbers (particularly averages), whether this is done in political science or operations research. Structuralist methodologies try to explain events by relying on larger contextual structures, whether geography, social forces, etc. Each discerns general patterns in its data to say something about warfare or the context in which it is taking place. Yet because EoC-generated insight is inductive, it has trouble engaging with the future, and its attempts to do so are flawed. As a result, EoC-answerable questions can only propel the researcher to the starting line of researching strategy, because strategy itself is a logically abductive activity concerning the imagination, implementation, and effectiveness of a process in unique circumstances—which EoC research can support but not explain with its generalized data.

By contrast, CoE research is qualitative, generally historical, and often dives into details concerning how causes led to effects, although interpretivist methodologies eschew causality. Interpretivism may take various forms but it is often similar to EoC structuralist approaches, although it often broadens the field from merely a study of structure also to encompass the relationship between structure and agent. Such features allow CoE and interpretivist methodologies to engage directly with strategy’s own inherent abductive logic, allowing both CoE and interpretivist methodologies to study strategy itself, which is something EoC cannot do.

This is not to assign various methodologies absolute values; such a thing is impossible. But it does delineate for the first time in strategic studies what uses various methodological perspectives have, and it will allow researchers to connect, more deliberately and sensibly, questions and methodologies to study strategy.

# European Military Transformation During the War in Afghanistan

## WORKING GROUP 10: MILITARY STRATEGY

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The war in Afghanistan (2001-2021) was a transnational undertaking of various, mostly Western, armed forces fighting irregular guerrillas. From October 2001, several European military forces were deployed as part of multinational operations, including the US-led Operation Enduring Freedom (OEF) and the International Security Assistance Force (ISAF), initially under UN command and from 2003 under NATO command. This paper examines the role of a subset of European militaries in responding to the Afghan insurgency during their deployment as part of ISAF from 2003 to 2014. While part of this multinational coalition, their heterogeneous military transformation was crucial in fighting the insurgency and countering American pressure. To counterbalance the focus on American military doctrine, I will compare the counterinsurgency (COIN) doctrine of the German Bundeswehr, the Swedish Försvarsmakten and the French Armée de Terre. In Germany, the political leadership, overwhelmed by the mission in Afghanistan, reacted with a restrictive attitude towards the Bundeswehr's learning capacity. Under increasing pressure from both inside and outside the Bundeswehr, these operational restrictions were increasingly relaxed from 2010 onwards. As a result, doctrines such as the new German guideline on counterinsurgency became possible. Unlike Germany, Sweden had no explicit COIN doctrine until 2014, only tactical references in the Armed Forces Guidelines. Nevertheless, integration as part of ISAF led to the desire for a COIN doctrine. From a doctrinal perspective, however, France has changed the most: COIN doctrines were introduced at both the army and joint levels. The French counterinsurgency effort bore a striking resemblance to the US blueprints. However, the lessons learned from the French engagement in ISAF have led to a more pronounced military emphasis compared to the US roadmaps. Much more offensive than German and Swedish COIN, French counterinsurgency doctrine has been heavily influenced by ISAF and its context. While drawing on American manuals and the ideas of historical COIN proponents, French doctrines showed a strong tendency towards offensive military operations and a much smaller share of non-offensive and civilian counterinsurgency concepts.

My presentation will show that these developments took time and were accompanied by conflicts within ISAF and between national military and political leaderships.

# The Air War in Ukraine: from Dispersal to Kursk Incursion

## WORKING GROUP 10: MILITARY STRATEGY

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The last two years of the Russian full-scale invasion of Ukraine illustrated various aspects of warfighting across domains, providing multiple points for consideration regarding current and future war. In this presentation, the timeframe of air warfare is discussed illustrating the initial aerial combats, the impact of the established frontlines on the aerial domain, the increasing focus on air defences and the importance of drones in providing sufficient ISR, and firepower on the tactical level in support of the ground forces on the daily basis, with a more sporadic employment of the Ukrainian tactical aviation. The absence of sufficient aerial assets increased the necessity for ground air defences to conduct air denial against Russian attacks, gradually establishing mutual air denial. Furthermore, the continuous Russian long-range ballistic and cruise missile attack campaign illustrated significant necessities in IAMDs, especially with layered and multi-faceted compositions. This presentation also examines the shortfalls of the Russian mass and numeric superiority in the air war and how Ukraine combined conventional and unmanned aviation in countering the Russian threat. Although the war continues, various conclusions can be already drawn, and complex matters of warfighting can be discussed. First, the primary point for discussion is the importance of sufficient numbers of available equipment, meaning the necessity for establishing critical mass to undermine the mass approach of the Russian attack campaign. Furthermore, the evolution of the Russian long-range mass barraging campaign, changes in targeting and tactics and Ukrainian counter-measures are discussed in greater detail. Second, there is the enduring question of sustaining the available assets through passive and active air defences. Third, the questions of targeting, intensity, asymmetry and logistics are also addressed. Suggested lessons learned are then discussed in a broader Allied context.