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ABSTRACTS

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Notes about Submissions

- Some abstracts were truncated by the Fikket software, and information is incomplete unless the authors sent papers or abstracts. Emails have been sent requesting additional information, which will be forwarded to all when received
- Some authors did not provide titles with their abstracts. Titles have been suggested based on the information available.
- In this version abstracts from young scholars and new faculty have been distributed to suggested working groups, according to the program.
- Abstracts have been alphabetized within each working group by assumed SURNAME
- Young scholars and new faculty have been included in the panels most suited to their abstracts. A separate event to facilitate networking for young scholars and new faculty members at military universities has been included in the program.

WG1 War Studies

chair: Marzena Zakowska, War Studies University of Poland, m.zakowska(a)akademia.mil.pl

BARTOLOMEU, LCol José Paulo Silva, Portuguese Military University, jpbartolomeu(a)gmail.com, "Tactical Considerations to Prepare and Conduct Operations in Subterranean Systems," Subterranean systems (spaces or structures located beneath the ground) have been recurrently used by civilians, states, fighters, insurgents, terrorists and criminals throughout the history of mankind. Models reflecting the main characteristics of operations in subterranean systems can be very useful to state operational requirements, build capacities and draw up plans and orders. The overall objective of the research is to summarize tactical considerations in subterranean systems to support the preparation, planning and execution of land operations at the tactical level. Concerning the study organization, after the introduction, begins the second chapter, where a theoretical and conceptual framework is made, describing relevant concepts to ground forces operating in subterranean systems. The literature review focuses on military operations, on mission variables and on subterranean systems categories. The analysis model adopted to conduct the research is also presented. The third chapter describes the methodology followed and the method used in the research. The research strategy adopted is mixed. The method adopted to carry out the theoretical and conceptual framework is quantitative. To present the data is adopted a qualitative research method. Research privileges empirical observation and the contextual conditions in which phenomena occur to create theories. Relies on the Grounded Theory for the collection, analysis, and systematic treatment of data. In fourth chapter we present data on land operations in subterranean systems, duly selected for their relevance throughout history. The appropriate data are extracted from memos and coded. During the fifth chapter the mission variables of the various operations are analysed, and the patterns are overlapped with tactical considerations proposed by the North Atlantic Treaty Organization and the United States Army. Finally, are deduced tactical considerations to guide ground forces preparation to conduct operations in subterranean systems.

BOROCH, Robert, War Studies University, Poland, robboroch(a)outlook.com "Anthropological Aggression — Theoretical Outline" The article will present the problem of anthropological aggression on the example of the history of Warmia in the XX and XXI century. The anthropological aggression is understood as aggressive actions aimed at gradual ideological control over an opponent's information space. Depending on its level, anthropological aggression is characterised by different forms of action. What distinguishes anthropological aggression from anthropological war is: (1) long-term planning, involving as long as several decades; and (2) indirect pressure. The first level of anthropological aggression is the emphasis of the aggressor's interests in key areas of the opponent's state, such as informational, economic, political, educational, or academic space. The major outline of the paper is to present a theoretical background of the phenomena.

CORREIA, LCol Joao, Military University Institute (IUM) Portugal, correia.jmp(a)ium.pt "The United States Of America In The North Korean Crisis: Military Response Options," This article aims to assess the possible Military Response Options (MRO) available to

the United States of America (US) in the crisis it is experiencing with North Korea (DPRK) due to the development of its nuclear programme. It is assumed that the DPRK already has the status of a nuclear power, so the dialectic of wills is now related to “denuclearisation”. About two years after a period of great tension (occurred in September 2017), and despite signs of diplomatic rapprochement between the two parties, the future is still uncertain and all options must be foreseen, even the most unlikely or unimaginable. It is in this context that this article is justified because, after all, war cannot be the "continuation of politics by other means" without MRO’s, and it is up to the military instrument to study and plan the best options, to be implemented if necessary, and always within a framework of strategic validity. On this subject, the existing literature, although broad, reveals, on the one hand little depth in the definition and analysis of options and, on the other hand, is practically silent on its strategic validation. Thus, by using a deductive reasoning based on the concept of MRO and the strategy test (requirements of acceptability, suitability and feasibility), as well as a qualitative research approach, one concludes that of eight possible MRO, only four have strategic validity. The range of options is conditioned by the associated strategic risk, so the non-kinetic actions will tend to be the most likely. For these reasons, this research has led to a more complete and solid approach to possible MRO’s. In addition, it is very relevant in the framework of the application of the military instrument at its three levels (strategic, operational and tactical). But that's not only that! This research has also shown how complex this situation is and how much more serious it can become.

KOLODZIEJ, Aneta, War Studies University, Poland, Aneta.godunska(a)gmail.com “Military force or civil institutions – who understands better and combats misinformation more effectively?” The aim of my talk is to draw your attention to one of the key issues regarding the structure and collaboration between the military and non-military components in order to defeat misinformation. Currently, most of the democratic countries, which based on the freedoms and human rights provide access to free media and the Internet, are coping with rapid increase if misinformation rate. Poland is no exception, as it is prone to misinformation inflow from the Russian Federation. It should be noted though it is not the only source of fake-news. Misinformation hits areas that are crucial to the national security of the Polish Republic, such as military, economy, politics, and social area. On a long run, it might affect the engineering structure of the Polish society. As a result, the authorities have decided to set up an effective system to counteract fake-news, post-truths, and the misinformation processes. A major issue to consider prior to constructing the system must be to define the rules and the scope of collaboration between the military and the civil institutions. And here comes a basic question: who – the military or the civil bodies – should be in charge of the structure dealing with misinformation incidents and processes? And to what extent should those two components cooperate? What will be the rules of exchanging information between them? The whole consideration will be framed within the critical analysis of the problem in question. It will be attempted to define common ground for collaboration between the military and the civil institutions. And what follows is identifying the possible sensitive areas which might cause some crisis situations. They may be due to concerns about entering the area of exclusive competence of the other party or due to lack of trust. It seems, however, in a situation of global

and almost unrestricted information society, this interfusion of the military and the civil elements is unavoidable.

KOZERA, Cyprian, War Studies University, Poland, kozeracyprian(a)gmail.com "Study Of A Potential Hybrid Warfare Scenario Against Poland," The proposed presentation aims at academically approaching the topic of a potential hybrid warfare scenario on the Polish territory. The goal of the analysis is to put the contemporary and up-to-date research and experiences of hybrid warfare (ranging from Lebanon 2006 to the on-going Ukraine crisis and the latest U.S. Election interference) into the specific context of the Republic of Poland. The author wishes to discuss possible hybrid threats in various domains (including inter alia: cyber security, fake news, election interference, low-intensity conflict, maskirovka, economic pressure, etc.) and assessing possibilities of this phenomena occurrence on the Polish territory in the foreseeable future. Upon consultations with military experts, security professionals, and academics, the author aims at constructing a potential scenario of a hybrid conflict that could threaten Poland (or any of her neighbours), at the same time refraining from doing it in a way that could be considered an instruction for potential foes. The core of the scenario is devoted to the military affairs, hybrid warfare tactics, and countermeasures that Poland should implement in order to remove critical weaknesses and strengthen her resilience against a hybrid foe who is ready to exploit any vulnerabilities in the least convenient time.

KRZYZEWSKI, Jan, War Studies University, Poland, janek.krzyzewski(a)gmail.com "The role of the Suwałki Corridor for NATO's eastern flank security strategy." In the present decade, the eastern flank has become a focus of attention for NATO security strategy. The Suwałki region in northeastern Poland has played a significant role in this strategy. This region is an essential connection between NATO and Baltic states members, namely Lithuania, Latvia and Estonia. Also future use of this area by the Alliance has become particularly important after the annexation of Crimea by Russia. However, lack of extensive infrastructure in this region may have an impact on the effectiveness of the Alliance's forces relocation to the Baltic states. The aim of the article is to analyze the role of the Suwałki region in the security strategy policy of NATO's eastern flank. The framework of the study is based on the realism paradigm. The research is based on critical analysis of literature as well as interviews with the experts of Euro-Atlantic security. The findings of the study show an increase in NATO military presence in this region, which may in near future contribute to the introduction of a new strategy policy for the eastern flank that will take into account the interoperability role of the Suwałki region. Finally, a model of the security of Suwałki region in NATO strategy has been developed.

LINDGAARD, Major Per, Royal Danish Defence College, Peli(a)fak.dk, "How to navigate in the doctrinal dilemmas!" How do various doctrine development and implementation processes affect agility in military organizations, depending on whether the organization is preparing for a war, is preparing for the war or is at war? Change is inherent to war. As a consequence it seems evident that military organizations should strive for agility. But creating agility is specious, and it presents the military organizations with some underlying dilemmas. Foremost is the dilemma between being responsive and being adaptable. Or to put it in other words, making the perfect organization in response to a specific scenario, might make it useless and

resistant to change in another scenarios. Thus, framing agility becomes a task for the individual military organization. One way of doing this is through the development of doctrine. And since wars character changes, military organizations are on a never ending endeavor of striking the best balance in the doctrinal dilemma. Therefore this project seeks to contribute field of military science by illuminating how the process of developing and implementing military doctrine affect agility in military organizations. It does so through studies of various processes depending on whether the organization is preparing for a war, preparing for the war or is at war. Applying theories for strategy, innovation and organizational change and learning, the aim is to learn from cases in NATO, Finland and USA/Israel, and identify characteristics for a successful process, thereby informing contemporary Danish doctrine development and implementation process.

MEYER, Commander Eystein, Norwegian Defence University College, elmeyer(a)fhs.mil.no,
The US and NATO led wars in the beginning of the 21st century in Afghanistan and Iraq did not lead to an enduring peace, and therefore are often considered as unsuccessful wars. Centrally in the planning method utilized in those wars was the Center of Gravity (COG) concept. After identifying the COG in the opponent, destroying or neutralizing this would become the main objective for the military operation. However, history showed that while this perhaps was good enough to win the first phase of a war, it was clearly not enough to also win the peace. In NATO this recognition led to the introduction of "Comprehensive Approach" (CA). Employment of culture and gender advisors in the joint headquarters and changes in the planning method in 2010, were supposed to ensure future success in wars. Based on my own experience from a NATO JHQ from 2009 to 2012, I noticed that the newly employed culture and gender competence was normally civilians without understanding about the military planning method; not to mention the COG analysis, leading to potentially poor communication and exploitation of that competence. The COG analysis had also developed (Strange & Iron (1996), Echevarria II (2004), Vego (2008)) and its' significance in the planning method had changed in NATO from the previous Guidelines of Operational Planning (GOP) to the Comprehensive Operations Planning Directive (COPD) from 2010. It is my hypothesis that the COG analysis does not promote CA in NATO, and perhaps is not even a useful analytical tool any longer in the military planning method. Therefore, my PhD project intend to investigate, understand and describe, from a teleological, methodological, epistemological and ontological perspective, the utility of COG in NATO's planning method. Further, it will use the same approach to find out what military planning method needs to understand about the different actors and potential actors in an operating environment; to identify what to influence to achieve mission success. And finally, recognizing that much research and development within topics related to "influence" and "planning" is conducted also outside the military, the project also intend to investigate if there is something to learn from other academic or business environments. The project will have utility for education of military personnel in strategy and operations, doctrine development, and civil-military cooperation in support of CA. This research is connected to theory on how to win wars, military planning, military/operations design, marketing, project management, business strategy, etc.

OLECH, Aleksander, War Studies University, Poland, a.olech(a)akademia.mil.pl

"Contemporary terrorist threats to the security of Central Europe." From the beginning of the 21st century, terrorism has been evolving and takes the form of various acts of violence committed by terrorists. It is characterized by its close relation to history and the political situation in the world. The development of security research in the 21st century in Europe clearly states that security is an independent research discipline, whose main goal is to obtain a multi-faceted, profound and synthetic image of reality, perspectives and threats. Due to this fact it is vital to analyse contemporary threats such as terrorism. Currently, the French Republic and Ukraine are struggling the most with intra-state terrorism. Its effects lead to the destabilization of national integrity and threaten social security. This situation is also important for neighbouring countries and international organizations, to which they belong, such as the European Union or NATO. In addition, terrorism is growing in the Balkans and the Caucasus region. The emerging threats make Central Europe vulnerable on all its sides. Terrorism as a phenomenon, and at the same time a form of weapon for the growing number of its supporters, requires immediate attention. The complexity of this phenomenon requires the intensification of the activities of state organs in order to understand it and define ways to counteract and prevent its occurrence in the future.

PALCZEWSKA, Milena, War Studies University, Poland, m.palczewska(a)akademia.mil.pl

"Social and environmental impacts of armed conflicts" Military activity has significant impacts on the environment and society. Not only can armed conflicts be destructive to the socioenvironment, but military activities produce extensive amounts of greenhouse gases (that contribute to anthropogenic climate change), pollution, and cause resource depletion, among other environmental impacts. To achieve first research objective, three cases were analyzed: Vietnam War, Persian Gulf conflict and former Yugoslav wars. Second purpose of research is to determine theoretically and empirically the impact of armed conflicts on society, such as displacement, education, gender etc. Study analyses the relationship between war and population, and the impact of the growth and decline of population on important types of warfare – armed conflicts and classic war. At its root, the importance of the link between demography and war is the relative capacity of a given political unit's population to aid in its defence or to threaten other political units. For this reason, population increase and decrease have always been identified as vital security issues. Demography and war will continue to be an important and policy-relevant topic. As a research method, the comparison of the number of fatalities of individual armed conflicts and their correlation with the number of people before and after the conflict was applied.Third aspect of research are climate changes and armed conflicts. Although comparative research on security implications of climate change is rapidly expanding, major gaps in knowledge still exist. Taken together, extant studies provide mostly inconclusive insights, with contradictory or weak demonstrated effects of climate variability and change on armed conflict. Method of review of empirical literature on short-term climate/environmental change and intrastate conflict, with special attention to possible insecurity consequences of precipitation and temperature anomalies and weather-related natural disasters was use. Also findings and lessons learned from four case studies were conducted.

PARYSEK, Ewelina, University of Business and Administration in Gdynia, Poland, e.parysek(a)kadra.wsaib.pl "The linguistic depiction of the Yogoslav conflict in the years 1991---1999 in Serbian, Croatian, and Bosnian press." In my article, I aimed at a multilevel description of selected Balkan press articles, with particular attention paid to the problem of manipulation and propaganda. Ethnic cleansing, killings, and rapes were the central theme of news bulletins from Yugoslavia at the time. But the news tended to show a distorted or even a completely false picture of the events. From the beginning of the conflict, a media war was waged both in Yugoslavia and internationally. Mass media became a carrier of disinformation. I believe the tragedy in Yugoslavia cannot be fully grasped without an examination of the media war campaign. Its negative role consisted in creating an extremely distorted picture of the events in Yugoslavia, especially in Bosnia and Hercegovina and Kosovo. For instance, the Polish press demonized the Serbs, blaming them for all the evil that happened in the "Balkan pot". We know today from the documents of the Hague Tribunal that all sides of the conflict (the Serbs, Croats, Muslims and Albanians) committed war crimes, locked innocent people in camps where they were tortured and killed. In my article, I deal with issues of propaganda, disinformation and language manipulation in the media, particularly in the press. I examine how the media create reality and exert normative influence on the society; the way propaganda appeals to our prejudices, obsessions and emotions; also, the images, symbols and stereotypes it uses. In the second part I characterize a selection of press titles, and on the basis of selected articles in order to present a linguistic analysis of the texts from Serbian (Politika, Danas, Vreme), Bosnian (Oslobodjenje, Liljan), and Croatian(Vjesnik, Slobodna Dalmacija) newspapers published during the 1991---1999 war. In the language analysis, I pay special attention to the use of stereotypes and emotionally charged vocabulary, analyze the language of the press, its inflection, phraseology and semantics as it reflected the reality of the war. I examine the means of expression and distinguish between illustrative and verbal – illustrative language utterances. Additionally, I consider the intensity of statements: the position of the text in the newspaper, whether it is on the first page, its typeface, the use of colours, the illustrative qualities of the material presented, the occurrence of maps, drawing or diagrams.

PIKNER, Colonel Ivo, University of Defence, Czech Republic. "Spectrum of approaches to the development of operational concepts in armed forces" Military operational concepts constitute fundamental strategic documents describing the employment of armed forces in future operations. The paper focuses on the diverse spectrum of approaches to the operational concept's development in armed forces of different security actors. The article starts off with an overview of widely used approaches to the development of operational concepts by distinct political and military actors. Subsequently, the data are analysed by a mixture of qualitative and quantitative methods. In the second part, the paper offers recommendations on concept development, which can be useful for both global and regional audience."

ŠLEBIR, Miha, University of Ljubljana, miha.slebir(a)fdv.uni-lj.si "Theoretical and structural analysis of the centre of gravity concept." Centre of gravity – a concept of prominent importance in modern operational art – has received widespread attention during the past three decades. Even though the roots of the concept can be traced back to

Carl von Clausewitz and his Schwerpunkt, recent redefinitions have become far more influential than the original conceptualization. Therefore, majority of Western doctrines heavily depend on modern interpretations, which are widely believed to be straightforward, utilizable and adaptable. However, as many theoreticians point out, concept is still far from being perfect and is often a source of misunderstanding and confusion. Furthermore, its theoretical (explanatory) power is highly questionable. During my discussion, I will try to shed light on understanding of concept's limited theoretical reach. Most notable modern formulations of the concept are derived from J. A. Warden's five rings theory, J. L. Strange's CG-CC-CR-CV construct (and its later refinement by D. C. Eikmeier), A. J. Echevarria's understanding of a focal point and M. N. Vego's critical factors analysis. In terms of content, these conceptions differ so greatly from one another that it is not reasonable to regard centre of gravity as a uniform concept – it is rather a background concept encompassing a broad constellation of meanings. According to a theory of concept formation in social sciences, individual versions of the concept can be analysed via a structural approach, revealing multiple levels and multiple dimensions of the concept. From a theoretical perspective, goal of the analysis is to parse the concept down to an indicator/data level, which can then be used for measurement (to score the cases). However, as it turns out, most variants of the centre of gravity concept are designed rather vaguely, ultimately limiting the validity and reliability of conceptual analysis. To enhance its theoretical utility, conceptualizations should improve precision and logical consistency. Only so, the centre of gravity concept could fruitfully serve not only its practical aims, but could also be used as a powerful theoretical (explanatory) tool.

SUNG, Major Kieun, Korean Military Academy ske917(a)kma.ac.kr "The relationship between weather conditions and military operations." Weather has been considered as one of the crucial elements for military operation, but few studies have been dedicated to quantitatively investigate the occurrence of battle under varied weather conditions. Without spatially specified metrological information, evaluation may mislead about the relationship between weather and conflict. In the present work, I apply a narrow unit of analysis and geographically specified weather information to investigate the relationship. I expect that mild weather provides the best opportunity to fight well for combatants and this positive effect of weather is more pronounced on the first battle than later battles in a conflict and further dispatched combatants are more concern about the weather of battlefield away from home country. I found supportive empirical evidence for my expectation. I employ the HERO dataset including 372 battle cases covering 1905 to 1973 and NCEP Reanalysis dataset containing monthly mean precipitation and temperature. This result suggests that conflict initiation is largely shaped unilaterally by initiator but that later dynamic of conflict is shaped collectively by both initiator and target and global warming tends to facilitate the conflict between contiguous states but it tends to discourage conflicts involving dispatched combatants by great powers.

ZAKOWSKA, Marzena, War Studies University, Poland, m.zakowska(a)akademia.mil.pl "Trends in armed conflicts and global security," Background: Despite the dynamic development of civilization, armed conflicts remain invariably one of the main threats to global security. However, in recent decades they have undergone

evolution, which not only points at their quantitative and qualitative change but also indicates the need to adapt national and international policies and defense strategies. Organizations of Euro-Atlantic security, such as NATO and the EU, also need to implement effective strategies to counteract threats resulting from armed conflicts (e.g. mass migration, international crime, proliferation of weapons, terrorism). The changing nature of war has generated complex challenges for the international community in the area of ensuring global peace. One of them is the redefinition of war, the other one is reforming the mechanisms used to prevent the use of armed conflicts as a policy tool to pursue international interests by political entities. Nowadays, a holistic approach needs to be adopted in order to understand the armed conflict because modern war is a specific cluster of parallel conflicts of geopolitical, geostrategic, geo-economic, informational, and psychological nature. The mosaic warfare brings the underlying difficulty in its termination. In addition, the initiation or continuing armed conflicts have more often become the result of political calculation based on the entity's pursuit of maintaining or broadening the influence zone on a regional or global scale. Existing mechanisms concerning the protection of the sovereignty of the state or the civilian population (e.g. the responsibility to protect) turn out to be unsuitable in such situations, as evidenced in conflicts in Georgia, Syria and Ukraine. Objective: The aim of the article is to analyze the trends of contemporary armed conflicts in the years 2000-2019. The research has been based on the realistic paradigm and the methodology of armed conflict developed by Heidelberg Institute for International Conflict Research and Uppsala Department of Peace and Conflict Research. The comparative analysis of trends was carried out on the basis of the quantitative and qualitative criterion of data analysis of conflicts gathered by the centers UPPSALA (Uppsala Conflict Data Program, UCDP), PRIO (Conflict Trends), Heidelberg Institute for International Conflict Research (Conflict Barometer), and United States Institute of Peace. Findings: The results of the research indicate that internal conflict that frequently involves external state actors has been the predominant form of conflict. Low intensity conflict and increased fatalities from non-state violence prevail. Conflicts become easily internationalized. The reasons for war frequently include system/ideology, subnational dominance, national and international power, resources, autonomy. Furthermore, nationalism, democratic recession, and religious extremism underlie the increase in conflicts. The severity and continuing of conflicts are shaped by a number of factors including: the number of actors involved in the conflict, the relative strength, the type of warfare, the nature of foreign interventions, and porous borders. The diversity of actors/entities engaged in conflict (e.g. proliferation of local Islamic groups) and the methods of struggle they use are constantly growing. Forecast: In the short run, a significant change in conflict trends is not expected. We may observe the intensification of factors caused by increased severity and continuation of conflicts. In the long-term we may notice that slow progress of democratization and development is likely to persist and trigger a long-term decrease in conflict. The main reason for starting war will include the configuration of factor ideology, national and international power as well as resources. It is urgent to further invest in conflict resolution and prevention effort in order to effectively decrease the number of conflicts.

WG2 Military History

Chair: Art Johansen, Baltic Defence College, art.johanson(a)baltdefcol.org

PEDERSEN, Claudia, Royal Danish Defence College, clpe(a)fak.dk "Interdisciplinary analysis of Arab Israeli urban asymmetric conflicts 1982-2014" The Israeli-Arab conflicts from 1982 until 2014, analyzed in an urban warfare perspective on the operational- and strategic-political level, comprise the empirical foundation of my Ph.D. project. The Israeli experiences in fighting in urban areas against an asymmetric or hybrid adversary are extensive and have to a high degree illustrated the challenges for a democracy in fighting non-state actors in densely populated areas. Especially the challenges faced by the Israelis which relate to the difficulties in complying to the Laws of Armed Conflict (LOAC), when the adversary on the other hand does definitely not adhere to the laws, but instead use protected buildings and civilians as shields. This aspect is closely connected to the presentence of media, internet connection and social media on the battlefield and how this presence affect both local and global public opinion with following consequences. The challenges of doing this project has to a large degree been that theory on urban warfare and essential challenges within this field, as just indicated, are not to be found within a single academic discipline - on the contrary several disciplines relate to the overall topic. The project is basically a historical analysis, however pointing at the future, identifying challenges present and around the corner, which to a high degree has defined the areas of the project. A combination of theory of war and theory on 'the city' has been essential in the analysis of the historical cases of the Israeli-Arab wars 1982-2014 in an urban warfare perspective. Thus academic civilian disciplines, besides history, as architecture, archaeology, urban geography, political science, sociology, biology (systems/organisms) and economic and demographic networks are parts of the foundation. In addition, theory on international law, media, social media and communications are important – and only increasingly important - in the cognitive urban battlefield. Thus the interdisciplinary approach has been essential in the highly complex area of urban warfare, which my paper will outline.

SCHØNING, Anna Sofie, Royal Danish Defence College, Ashs(a)fak.dk "The Use of Military History in Danish Army Officer Education," The military profession is often presented as special, not least because the professional soldier for extended periods of time, decades or maybe never, will engage in the core activity of his profession, namely combat in military operation. Due to the extreme nature of war, the closest the soldier can get to gaining practical experience is, according to some scholars, through the study of military history. Some studies examine the use of military history in officer education, however, very few on an a both empirical and epistemological level has rarely been thoroughly studied. The purpose of my PhD thesis is to analyse how the Danish Defence selects and transforms experience and military history into learning in army officer education in the periods 1900-1920, 1960-1980 and 1996-2016. The thesis further examines what can explain changes and stability in the transformation and selection processes of the institutionalised use of military history. Including what does the increased Danish participation in international military operations and thereby larger base of experience mean for its use of military history. Using an interdisciplinary methodological and theoretical

approach drawing on theory from history didactics, historiography, history of science, military theory and organisational studies the thesis analyses institutional use of military history in the Danish Army officer education, as it is expressed in different types of educational material, assignments and professional debates. The thesis devotes attention to theoretical questions such as how experience can be converted into learning and what characterises the epistemological understanding underlining the use of history in officer education. Using Reinhart Koselleck's concepts of space of experience and horizon of expectation it is analysed what pasts are deemed instructive and which are ignored, how the past is collated with the present, which anticipations about the future are made and how these are structuring present use of pasts.

SOUSA, Teresa, with Captain (N) Costa Canas and Lieutenant (N) Magda Marabujo, Escola Naval and CINAV, Portugal, teresa.maria.sousa(a)marinha.pt "The Portuguese Contribution to Air Navigation." In 1922, Gago Coutinho and Sacadura Cabral, two officers of the Portuguese Navy, completed, the First Air Crossing of the South Atlantic from Lisbon to Rio de Janeiro. This crossing was different from the North Atlantic crossings completed in 1919. In fact, in the North Atlantic crossings the goal was to reach the west coast of a continent. Instead, in the South Atlantic crossing from Lisbon to Rio de Janeiro, Coutinho and Cabral needed to reach the Saint Paul's Rocks, a tiny point in the immensity of the Atlantic Ocean. This endeavor was successful because Coutinho and Cabral conceived and developed the first scientific methods of aerial navigation. From all the methods and innovations developed we shall highlight the conception of two instruments: The Path Corrector and the Precision Sextant; as well as the design of an algorithm to determine the aircraft's altitude. The Path Corrector, conceived by Coutinho and Cabral, enabled the navigator to determine the direction and velocity of the wind and also to determine the new direction of the aircraft in order to compensate for the wind drift. The Precision Sextant, developed by Coutinho, was a new model of sextant with its own artificial horizon, that could be used to measure the height of a star without the need of the sea horizon. Finally, to determine the aircraft's altitude Coutinho developed an algorithm based on a mathematical geometrical procedure that allowed the navigator to determine the aircraft's altitude quickly and expeditiously during the flight. The methods developed by Gago Coutinho and Sacadura Cabral were the seeds for the success of intercontinental air transportation and they represent an important contribution of the Portuguese Navy for the benefit of society.

WG3 Military Technology

Chair: Hannu Kari, Finnish National Defence University, hannu.kari(a)mil.fi

BORGES, Jose, Tolentino Martins, Miguel Parda, Military Academy Research Centre, Portugal, tolentinomartins(a)gmail.com, miguel.pardal(a)tecnico.ulisboa.pt, jose.borges(a)acaemiamilitar.pt, "Vulnerabilities and risk management model for decision support in the cyber domain." Cyberspace is nowadays accepted by several nations as a domain of military operations. The cyber world that we live in today is becoming increasingly complex and defined in terms of network-centric societies.

Both humans and machines might be constrained by geographical boundaries nevertheless, their digital interactions are immune and pervasive to spatial constraints. Large volumes of data travel through an interconnected cyberspace with velocity and diversity that make it difficult to monitor, process, or control. Although cyberspace by itself is not owned or controlled by governments, the hardware infrastructure supporting information systems is mostly owned by private companies. Nevertheless, concerns with data security, namely confidentiality, integrity and availability are transversal to both the military and civil dimensions. This article proposes an integrated approach to information security through proactive monitoring and management of both vulnerabilities and risk that affects either military or corporate IT critical assets. Consequently, risk management associated to those assets will require a model allowing decision makers to own, acquire and have, conspicuous timely available information providing them with capabilities to support decisions required for management. A model is proposed that allows information acquisition, assessment and modelling, to provide vulnerability, risk and business impact metrics, and indicators related with operational / corporate risk objectives, risk appetite and business impact assessment. Additionally, the resulting information is complemented with results produced through model-based data exploitation, which are also supplied to decision makers, at different hierarchical levels, to produce leading and lagging indicators. The resulting information can also support decision processes to feed decision supporting system. The comprehensive approach proposed in this work provides, therefore, information vectors to support the construction of a proactive, conspicuous, graphical and integrated dashboard. The dashboard might provide decision makers with agile and effective decision support, which is also able to deal with constrains of formal information security environment, such as the ones that are commonly found under both military and corporative complex environments.

CABRAL, Lieutenant Colonel Teresa, Major Diogo Duarte, Captain João Caetano, Simon Place, Pete Mcarthy Raska. Corresponding author, LCol Cabral, t.m.bettencourtcabral(a)cranfield.ac.uk, "Unmanned Aircraft Systems Risk Assessment: An Improved Approach" This paper outlines the main criteria used in the existing different UAS ground risk assessment models referred in the literature. From the analysed models, it is concluded that the main criteria presented in the majority of the risk assessment models are aspects related with UAS failures, impact location, recovery functions, third party exposure, sheltering effects and fatality rate. Moreover, the majority of these models does not incorporate in a quantitative manner aspects related with the UAS operations, maintenance and training. As a result, from the present research on ground risk models of UAS, this paper introduces an innovative improvement to be included in the Risk Assessment Tool developed by European Military Airworthiness Authority and facilitated by the European Defence Agency.

CAETANO, João Vieira, Aurélio Santos, Carlos Pereira da Silva, José Passos Morgado. Corresponding Author Major Caetano, Portuguese Air Force Research Centre, jvcaetano(a)academiafa.edu.pt, alsantos(a)academiafa.edu.pt, "Portuguese Air Force UAV Development, Certification and Operations for the Benefit of Society." This article describes the Portuguese Air Force Research, Development and

Innovation (RD&I) programme for the development of Unmanned Aircraft Systems and application of these technologies to the benefit of society. If focuses on the set of activities that have led to the operationalization of the UAS in this branch of the Armed Forces, in particular for Maritime Surveillance and Forest Fire detection and control. Under this scope, the Portuguese Air Force has focused on developing novel UAS systems. This task was attributed to the Portuguese Air Force Academy Research Centre (CIAFA), which bet on the development of Class-I UAS, through the integration of novel equipment on-board of specially developed platforms. The CIAFA collaborates with national industries and academia, with special focus on companies from the National Defence Technological and Industrial Base (NDTIB). In order to be able to fly and operate the UAS, the CIAFA thoroughly tests and produces detailed documentation to be submitted to the Nacional Aeronautical Authority for the approval of specific types of operations. The operations have focused on maritime environments, with the use of electro-optic, infra-red, multi-spectral and thermal sensors, as well as synthetic aperture radars. Powerful on-board processing is used to automatically detect vessels, which contributes to an improved efficiency of the mission, as well as a reduced level of attention and tiredness of the UAS operators. Currently, the Portuguese Air Force has been able to develop efforts in the application of UAS for Forest fire detection, monitoring and control, in collaboration with the National Association of Civil Protection. [paper available]

DUARTE, Major Diogo, Portuguese Air Force Academy, dxsduarte(a)gmail.com “Review of Studies to Improve Portuguese Airforce Equipment” [inferred title] The Portuguese Air force has operated different aircraft throughout its´ long existence, and in some cases, has operated a particular type of aircraft for more than 30 years, gathering a great amount of expertise in: assessing failure modes of the aircraft materials; conducting aircraft accidents and incidents investigations (sometimes with the participation of the aircraft manufacturers and/or other operators); and in the development of design and repair solutions for in-service related problems and for the development or extension of their military capabilities. This paper is a review article that aims to address a number of studies conducted in the last decade specifically in the scope of the development/incorporation of new capabilities, and studies of innovative inspection techniques or materials with particular interest to the military aeronautical industry. These studies and investigations are part of a great investment that has been being made by the Portuguese Air Force to thoroughly explore and increase the Portuguese Weapons Systems capabilities in the past decade and cover: Studies of composite materials to effectively reduce noise and vibration without using complex active methods, as extent of noise and vibration absorbed strongly varies with the type of materials and their internal arrangements; Studies of advanced Inspection Methods and Techniques to evaluate composite materials, in which the classical Non Destructive Methods show themselves as inappropriate or less effective, as they were developed specifically for the evaluation of metallic structures; Studies conducted to incorporate new anti-corrosive treatments to replace the classical chemical treatments with chromium (VI) compounds which are usually used to prevent corrosion, but which were banned by the EU since 2007 because of its carcinogenicity and negative environmental impact; Studies regarding the implementation of Fatigue programs and Structural Heath

Monitoring systems for the optimization of the aircraft service life; Works that were developed in the scope of developing proprietary equipment to improve and optimize maintenance in order to reduce the aircraft down-times; provide airborne navigation instruction capability to transport aircraft; upgrade the communication and surveillance systems of aircraft through the installation of video-down link capability.

FERREIRA, Officer Cadet Fabio, Portuguese Air Force Academy, fpferreira(a)academiafa.edu.pt "Conceptual Design of a Fixed-wing Aircraft with Vertical Take-Off and Landing for Surveillance Applications." In recent years, Portuguese Air Force Academy Research Center has focused its research mainly on unmanned aircraft vehicles. This project reinforces the work that has been done, opening a new window in the operation's spectrum of this type of vehicles. The vertical take-off and landing capability is not recent, and it is present in some aircraft, either manned or unmanned. However, this capability has shown some advantages. This work starts by describing the key concepts of the aircraft design, and vertical take-off and landing of unmanned aircraft vehicles, which are crucial to the understanding of the subject. Following this, a conceptual design of an aircraft is made. That aircraft should have 15 kg of maximum take-off weight and fly horizontally at 20 m/s and at 1000 ft of altitude (equivalent to 304,8 meters). To achieve that, an initial sizing of the wing loading and the power loading is done. Then the characteristics of the wing, fuselage, and horizontal and vertical elevator are calculated, such as total drag that an aircraft like that produces. Finally, the static margin for static stability purposes is determined. Once the conceptual design is done, proof of concept of vertical take-off and landing was achieved by using a similar model than the projected one. For that, an autopilot was programed to control five motors and four servos. Some flying tests took place and, in the last one, the aircraft performed a complete flight, taking-off and landing vertically.

MATTILA, Juha, Aalto University, Finland, juhakaimattila24(a)gmail.com and Simon Parkinson, "Opportunities and Constraints in Applying Artificial Intelligence in Military Enterprise." The short paper uses an enterprise architecture (EA) tool developed specially for military enterprises to assess the opportunities and challenges in adapting the benefits of AI. The EA tool analyses the strategic posture and operational processes of a military force. Furthermore, it focuses primarily on the command and control related capabilities including sensemaking, decision making, and organisational learning. Additionally, the tool helps to analyse the readiness of information, security and technical structures of armed forces. [paper available]

STANLEY-LOCKMAN, Zoe, Military Transformations Programme, S Rajaratnam School of International Studies, NTU, Singapore, iszlockman(a)ntu.edu.sg, "Militarised artificial intelligence: Ethical design as an imperative for operational safety and accountability" To paraphrase Clausewitz, new manifestations in war result from societal transformation rather than new inventions. In the second machine age, the primary driver in setting new social conditions is human-machine interaction, that is to say the manifold ways humans increasingly rely on and develop trust in digitalised forms of communication, robotics, and especially artificial intelligence (AI) and its

subset, machine learning (ML). That this profound transformation of society coincides with the re-emergence of strategic competition should be understood as a feature, not a fluke, of major transitions in the international security environment. In an era of strategic competition, discussions centring on weaponised AI/ML applications are seen as decisive to establishing a military advantage and maintaining deterrence if decisions are to be taken at machine speed. As is salient for any paradigmatic shift in the character of war, the sheer range of militarised AI/ML applications warrants a review of ethics and safety. Accordingly, this paper contends that the usage of AI/ML in defence decision-making must appropriately consider ethics as a determinant of operational safety and accountability, both in lethal and non-lethal systems. Because military AI ethics will necessarily draw from both civilian AI ethical guidelines and international humanitarian law, a cross-referencing of the principles will help elucidate the connections between military necessity, proportionality, distinction on the one hand, and privacy, fairness and non-discrimination, accountability on the other. Using John Boyd's observe, orient, decide, act (OODA) loop as the primary framework, decision-making can be separated into different steps of the process, therein allowing for an examination of human-machine collaboration, explainability, and trust in distinct stages. Because military principles and civilian guidelines are equally important to informing military approaches to AI ethics, analysis of their interactions with operational decision-making modalities can help identify how to maximise accountability and safety in AI. [long abstract available]

WG4 Leadership, Command and Control, Basic Competencies

Chair: Soili Paananen, Finnish National Defence University, soili.paananen(a)mil.fi

JAGER, Michael, Swiss Military Academy at ETH Zurich, Michael.jager(a)vtg.admin.ch "Visual Narratives of Toxic Leadership" This paper addresses the topic of toxic leadership and its relevance for military leaders (and society). Toxic leadership is a self-justifying mechanism under certain situational contexts and is often a result of dysfunctional personality traits. To understand leadership concepts, visual narratives can help as a powerful tool for further understanding. Future military science students can use movies to learn social and cultural dimensions of leadership in an interdisciplinary and practical approach. The use of such digital learning techniques will be of further interest in the future not only for military sciences, but also for social sciences in general. The movie "Platoon" (USA 1986) is a perfect example of how to use a movie for teaching concepts of leadership. With selected clips and educational notes, military students will understand the concepts of toxic leadership easily and in a visually appealing manner. The movie depicts not only the traits and behaviour of toxic leaders, but also how their subordinates cope with them and what damage this does to the group. It also shows very well the dynamics in fractionalized team under extreme situations. The presentation will cover theoretical insight into toxic leadership and provide some visualized narratives in form of short movie clips.

JEPPESEN, Captain Lennart Schou, Royal Danish Defence College, lsje(a)fak.dk "Can Military Leaders Influence Soldiers´ Morale?" The term Morale has been adapted by the military and you could say that it is to some extent unique for the military. The

term has been used to describe units´ motivation, persistence and dedication to solve military tasks. There is no doubt in the academic literature or in military leaders around the world that a high morale in units has a positive effect on how the units´ solve the task given. The Danish as well as NATO doctrines do in my perspective little to help the commanders in dealing with morale issues in their units. This has led me to try to answer the question whether the military leaders are able to measure morale in their units? And what is important for the commander to focus on? By answering this I hope to help military commanders operationalizing the term morale and to give them a deeper understanding of the term. In this presentation I will show my findings from a Danish questionnaire study on unit's morale prior and during their deployment to Afghanistan (ISAF). My presentation will focus on the following three questions: Can leaders actually measure this phenomenon in their soldiers or units? What are the most important factors for the Danish soldiers in regard to morale; cohesion/esprit de corps, leadership, shared purpose/common goal, resilience, preparedness or working conditions? And finally is there a correlation between morale in a unit and psychological distress after the deployment?

KAMINSKAITE, Ausra, General Jonas Zemaitis Military Academy of Lithuania, ausra.kaminskaite(a)lka.lt "Congruence between acquired and requested leader competencies in asymmetric warfare: analyses of leadership curriculum at military academy" Modern armies are no longer operating conventional wars. Military personal gain operational experience on the fields of unconventional or so-called asymmetric warfare. These asymmetric operations such as PSO, PRT, etc. when military personnel is acting under the flags of NATO, UN, OSCE are widely described by military sociologists Kaldar (1999) Leech (2002) Wagemaker (2009) Soeter, Fenema, Beeres (2010), Caforio (2013), etc. The content analysis of literature on asymmetric warfare operations allowed identifying the list (18) of specific traits of asymmetric warfare (Kaminskaite, 2018; 2019). On this circumstances useless to mention that changing environment of military actions requires new or so called other professional skills of military personnel. The role of military officers and commanders is undertaking changes as well. Distinct level of military commanders requires distinct expertise in order to apply unconventional measures and to make unconventional decisions. What asymmetric leader's competencies have be learned? Where it have to be train? The research study (Kaminskaite, 2018) done on this field identified that only 7 out of 18 competencies requested from leaders operating in asymmetric environment were developed during the pre-deployment training. Non-commissioned officers with the field experience in Afghanistan noted that most leader's competencies requested in the asymmetric war was train not during pre-deployment, but developed during the everyday military routine and excessing. The results suggested further research questions about asymmetric warfare leadership training especially at the military academies. Graduated from the military academy young officers has the lieutenant military rank and the knowledge to lead platoon. During first two years of military service, majority of them are deploy abroad and getting asymmetric warfare field experience as platoon commanders. Does acquired platoon leader competencies according to leadership curriculum at military academy are congruous with requested platoon leader competencies in asymmetric warfare. Is leadership curriculum good enough for platoon officer training or needs a revision for so to speak a new future leader? That is important because modern theories of leadership emphasize that decisions of lower level leaders recently became very

important (Robbins, S. 2007) and it is true for asymmetric leadership. Platoon commanders more often than higher-level leaders are the subject of asymmetric battlefield and their decisions has vital significance. Conference paper seeks to answer questions above and focuses on the research data extracted from content analyses of leadership curriculum at Lithuania military academy as well as from feedback interviews of the graduated officers.

KAMIŃSKI, Mariusz, War Studies University, Poland, m.a.kaminski(a)akademia.mil.pl "The role of research on intelligence and counterintelligence in military sciences" The paper presents a consideration on the role of research on intelligence and counterintelligence in military sciences. The author answers the question about the value… [truncated abstract]

KASPERSEN, Sergeant Iselin Silja, Nord University, Iselin.s.kaspersen(a)nord.no, "Soldiers' Self and Subjectivity – Pragmatism in Praxis?" The role identity of a soldier can be seen as a soldier's idealized imaginative view of who one is as a soldier. This internal view of oneself occurs through a mediating process of historical and societal factors. Soldiers will strive to act in accordance with their role identity. However, role performance, the particular behavior of a soldier, will often deviate from their imagined self. This article aims at understanding if and to what degree soldiers' experience a dissonance or a coherence between their ideal self and their role performance, or subjectivity. Furthermore, it seeks to understand what underlying barriers and/or enablers exists, leading to a possible dissonance or coherence between their self and their subjectivity. The article utilize data from 20 in-depth interviews with soldiers (ages 20-25, 35-40, and 50-55) and uses crafted stories to unveil how soldiers think, act and behave in relation to their imagined self and their subjectivity. Gaining an understanding about possible dissonances between self and subjectivity is important in many regards. Job-satisfaction and motivation is likely lower amongst soldiers experiencing a high degree of dissonance. However, as the last decades have witnessed a decentralization of responsibilities within military operations, soldiers might experience a coherence as a decentralized responsibility opens up for soldiers own interpretations, allowed to influence actions taken to a larger degree.

SMALIUKIENE, Rasa, General Jonas Žemaitis Military Academy of Lithuania, viktorija.simanauskiene(a)lka.lt "Assessing leadership capabilities of military and first responders for crisis and emergency situations" Whether natural, human-made incidents and wars, each crisis possesses unique and complex operational environment and requires strong leadership capabilities to implement response actions. Accordingly, every-day leadership practice, leadership self-development is encouraged and leadership development programmes are implemented across nations and institutions to develop leadership capabilities of military and first responders for crisis and emergency situations. However, assessing real leadership capabilities is often a difficult task as criteria for evaluation are neither standardized nor agreed. The previous studies admit that there are no universal instrument to assess leadership capabilities, moreover, leadership assessment is usually designed for long-term directions and self-development instead of leadership assessment in the field. Accordingly, we aim of this paper is to compare instruments and practices

for leadership capabilities assessment of military and first responders for crisis and emergency situations. The paper fills a gap by comparing two separate streams of leadership capabilities assessment: an assessment of leadership (self)-development that is designed for team cohesion in a long-term and assessment of leadership capabilities that are essential for short-term actions during crisis and emergency situations.

TESTOR, Captain Karl, Theresan Military Academy, Karl.testor(a)bmlv.gv.at "Approaches to generating military creativity" [inferred title] The success of military leaders in missions depends on their possibility to be mentally flexible in behaviour (Laurence 2011) as well as in problem solving (Gumpitsch 2008. p.331) or other cognitive fields (Judge & Colbert & Ilies 2004; Vock 2010). These empirically observed as well as theoretically derived information implies, that creativity is a very important strength of military leaders. This insight already was understood by Clausewitz, for whom the real strategist does not complain about uncertainties but welcomes them as a well of inspiration. Clausewitz sees uncertainty as a common and normal situation in the clash of antagonistic, purposeful and intelligent volitions. Consequently understanding neurocognitive processes as well as neuroanatomic and cognitive insights in order to explain the possibility of the genesis of (extraordinary) novelties becomes important for military science (singular). Creativity and flexibility of mind are within the most important qualities of military leaders. Therefore the identification of highly creative leaders as well as the understanding of how to improve creativity of high potential personnel for a military organisation essential for success (Testor 2019). Dependent on the different hierarchy levels this ancillary subject for military science provides the foundation to improve military training, leadership as well as the decision making process. This approach intends to bring the military elite to perfection by understanding the limitations of rules and norms of theories in order to enlighten the necessary moments of thinking outside of this box – in the spirit of Clausewitz, whichever would think of principles as crutches for the imitators. Providing a short insight in the possibilities of stimulus variation, emotional state variation and attentional focus change will give the audience a hint in how principles and expertise provide a functional structure, but how they could be left behind for the extraordinary achievements.

TROCHOWSKA, Kamila, War Studies University, Poland, k.trochowska(a)akademia.mil.pl "Leadership in gray zones – towards a sustainable security culture" The aim of the speech is to discuss the challenges for effective leadership in today's complex and ambiguous security environment, in which war and peace became elusive concepts. They have been replaced by the notions of "gray zones" and hybrid warfare. And it is not only the problem with limited conflict-resolution tools that can be applied in such circumstances. It is also not the implications for classical state security policy, but the very clandestine, intestinal and to a vast extent "psychological" nature of those threats. This shift renders the emergence of a range of different skills indispensable to function in such a challenging setting, and an increased ability to cooperate with civilian populations, beyond what we have learnt in population-centric operations. The main argument is that since those challenges base on informational and cognitive domains, it is rather the soft skills that should be developed in present and future leaders. Strategic creativity, flexibility, influence,

trust-gaining abilities and cross-cultural and social competence strongly enhance performance in managing contemporary security issues. One of such indispensable skills that became evident during the Ukrainian Crisis and following War, was strategic imagination and almost DIY-type creativity that demanded vast popular support, that had to be rapidly developed in a very specific socio-cultural context. Moreover, adapting such approach was a first step towards a sustainable security culture that we should be aiming to build in gray zones and elsewhere. The speech summarizes work performed by the Author for the NATO HFM 286 Leaders Development for NATO Multinational Operations panel and provides the hybrid war in Ukraine case study, based on field work performed by the Author since 2016.

ZILINCIK, Samuel, Masaryk University, Czech republic, zilinciks(a)gmail.com, "Emotions in strategic studies and beyond: why they matter and how to study them?" Despite the attention classical strategists such as Thucydides or Clausewitz dedicated to the role of emotions in war, strategic studies as a modern discipline of scientific inquiry have seldom paid them due respect. In contrast, within the broader field [truncated abstract]

WG5 Law and Ethics

Chair: Fredrik Holst, Swedish National Defence University, fredrik.holst(a)fhs.se

CARON, Jean-François, Nazarbayev University, jean-francois.caron(a)nu.edu.kz "The Prospect of Jus ad Vim as an Approach to the Global War on Terror : The Case of the the Stuxnet Cyber Attack." Defined for the first time by Michael Walzer in the preface to the 4th edition of his seminal book *Just and Unjust Wars*, the notion of *Jus ad Vim* refers to the use of "measures short of war" that are fundamentally different from what war usually refers to. Indeed, these *Jus ad Vim* actions are seen by Walzer as a different set of military actions with a lower level of force and fewer consequences than those used during wartime. Even though this expression is rather recent, it is nonetheless akin to the way limited reprisals have been interpreted by international lawyers since the 19th century—namely, 'neither wholly warlike nor wholly peaceful'. As this paper will argue, *Jus ad Vim* may provide us with an effective way to justify actions that are necessary to meet the specific challenges associated with the global war on terror. It will do so by focusing on the Stuxnet virus that seriously impaired the development of Iran's nuclear program.

DRABIK, Colonel Krzysztof, War Studies University, Poland, k.drabik(a)akademia.mil.pl "Morale in the army - ethical aspects" The morale phenomenon, most often identified with the battle spirit of a soldier performing orders on the battlefield, covers a broad spectrum of issues of philosophical, psychological and sociological provenance. The interdisciplinary nature of the designations of the concept of morale triggers a cognitive reflection on the determinants and determinants of the compliance of individual needs and interests with the tasks and objectives of the state institutions. Among the diverse aspects of morale, the ethical factor seems particularly important. The concept of morale can be attributed to broad meaning connotations, located within the area of scientific ethical, psychological and

sociological reflection. The cognitive criterion for the analysis of this concept is at least a few theoretical approaches. Morale can be considered through the prism of the state of human consciousness, self-esteem, dignity and honor, the process of identifying with the tasks and responsibilities set by social institutions, and finally, compliance with ethical principles and behavioral patterns preferred in a particular social group.

KOLODZIEJCZAK, Malwina Ewa, War Studies University, Faculty of National Security, m.kolodziejczak(a)akademia.mil.pl, "Security (and) Law – new field of law? Has lesson been learned?" In international public law and the also in Polish domestic law is many legal acts about different aspects of the security and defence. Since few last year Parliament have adopted amendments of few important acts in this area, e.g.: the Act of 14 December 1995 – The Office of the Minister of National Defence, the Act of 21 November 1967 – Universal duty to defend the Republic of Poland and the Act of 29 August 2002 - Martial law and the competence of the Commander-in-Chief and his subordination to the constitutional authorities of the Republic of Poland. But new government is preparing new legal background for new command and control system. In general in the Republic of Poland exist around 80 (statutes, bills and regulations, without international acts) legal acts about some kind of national security. Therefore, it should be considered whether such fragmentation of core issues and scattering in such a rich collection of acts is the right solution? Another problematic issue is the number of amendments to various laws rather than creating new ones. In this topic, the Constitutional Court ruled, stating that: "In preparing another amendment to the Act, editor should consider the possibility of developing a new law instead of amendment, if proposed changes can make its content opaque, change a lot of affect its structure or consistency". Although, in this branch of law would be place for the legal definitions, which are not exist in any other acts (e.g. entity, recognition, aggression, war, armed conflict, and under Polish law: state of war, "a time of war"). This makes it difficult not only for their use, but, what it is even more important, in the interpretation. In the article, the author wants to show some examples of these definitions (which exist in public international and domestic law), because the correct interpretation is great important for security (and) law... The most important hypothesis of the article refers to the belief that there are all the bases and predispositions to distinguish the security law (and within it, for example the defense or military law).

KUREK, Justyna, War Studies University Poland, j.kurek(a)akademia.mil.pl, "Online search as a new challenge for military science." Development of information society services and electronic communication poses new challenges not only for legal protection bodies but as well for military service. Cybercrime and threats associated with violence in cyberspace create increasingly high expectations of the State and its bodies in the area of security and also include non-military aspects, like protection against criminality or protection of privacy. These expectations are accompanied by broad consent for the State and its bodies to enter into the sphere of fundamental rights. In justified cases, in order to conduct effective operations, it is even necessary to use software like spyware. Classified online search of telecommunication systems with the use of spyware tools requires comprehensive regulation. Legal and political

consent for such activities requires creation of appropriate guarantees. Thus it follows that the challenges faced by the legislator are to define the legal framework for conducting operational activities in the digital world while at the same time ensuring balance between the effective counteracting of crime and the protection of citizens' privacy. In the legal doctrine, it is indicated that the operation of law enforcement agencies and security organs must be characterized by minimalism in order to guarantee the protection of the essence of private life. On the one hand, it should ensure the balance between an effective legal framework for guaranteeing public security in the online environment and legal regulation, on the other hand – it should respect constitutional norms, in particular the right of the individual to protect privacy, the inviolability of the home, and the protection of correspondence. The only condition is that such activities shall be justified by security reasons. It must be guaranteed for the safety of the population as constitutional values that stand on a par with other constitutional goods. Therefore, the security must be seen as being "in the service" of freedom.

RADONIEWICZ, Filip, War Studies University, Poland, f.radoniewicz(a)akademia.mil.pl, "National Cybersecurity System in Republic of Poland." The creation concept of legal regulations that ensure security in cyberspace is an important and difficult challenge for legislators. The aim of the speech is to present a new Polish regulation on cybersecurity. The new act - the Act of 5 July 2018 on the National Cybersecurity System ("ANCS"; J. of Laws 2018.1560) implements the directive (EU) 2016/1148 of the European Parliament and of the Council of 6 July 2016 concerning measures for a high common level of security of network and information systems across the Union (the NIS Directive). The author describes the new Polish provisions and compares them with the provisions of the NIS Directive."

WG6 Security and Defence Policy

Chair: Hans Lampalzer, Austrian National Defence Academy, hans.lampalzer(a)bmlv.gv.at

BILBAN, Lieutenant Christoph, and Hanna Grininger, Institute for Peace Support and Conflict Management, National Defence Academy Vienna, christoph.bilban(a)bmlv.gv.at, Hanna.grininger(a)hotmail.com "Labelling Russian Hybrid Warfare: the "Gerasimov doctrine" in Think Tank Discourse." This paper presents a critical examination of regional discourses on the so-called "Gerasimov doctrine", which became famous after the Russian annexation of Crimea and the unveiling of Russia's hybrid warfare against Ukraine. Analysts then found a 2013 speech of the Russian Chief of Defence General Valery Gerasimov, where he supposedly laid out the plan for the Kremlin's intervention. We elaborate on the genesis of both the actual speech of January 2013 and the term "Gerasimov doctrine" coined in June 2014. This simplified label quickly spread within the expert community, while the actual content remained mostly unclear. However, linked with the discussion on hybrid warfare the "Gerasimov doctrine" became authoritative knowledge used by authors to legitimize their work in the current academic debates. The mechanisms of referencing to Gerasimov vary in the examined countries, while some arguments emphasized in the first few publications endure throughout time and space. Therefore, we present the findings of the discourse analyses of the Baltic, British, Spanish/Portuguese, Chinese, German/Austrian/Swiss and American think tank debates between 2013 and 2017. A

contrasting view of the perceived and non-perceived elements in the different regions shows on the one hand that national security priorities are reflected in analysing potential threats, and on the other hand that certain elements of the original speech were marginalized. The Western perceptions of the "Gerasimov doctrine" are put into perspective. We ask why this actual address became that popular in Western discourse and reflect on its relevance in Russian national security discourse. Finally, we conclude that most authors perceived Gerasimov's address out of context, labelling it as a doctrine, while neglecting the context of its production. The paper is based on the authors' master theses and a research project done at the Austrian Armed Forces National Defence Academy.

DOMALEWSKA, Dorota, War Studies University, Poland, d.domalewska(a)akademia.mil.pl, "Military activities for the benefit of society. A case study of disaster management of the floods of 2019 in Poland through the lens of social media." Developing good civil-military relationship is essential, in particular in a situation of crisis. The aim of this paper is to discuss the role of the Territorial Defence Force in crisis management during the floods of 2019 in Poland. In particular, the study aims to answer the following research questions: (1) how is social media used by emergency services, including the army, during emergency situations? (2) what is the public perception of emergency services, including the army, during emergency situations? The study employed a retrospective examination of information posted on Facebook and Twitter. The corpus was created through mining social media for the flood-related keywords. With this web-crawling method, 10,755 Facebook posts and 7,709 tweets were retrieved in the period from 1 March to 10 June 2019. The findings show that emergency services use social media extensively to broadcast emergency alerts and to inform the public of activities they are involved in, which helps to form a positive image of emergency services. During the flood the Territorial Defence Force was directly involved in various stages of the crisis management cycle, which generated numerous positive comments from citizens.

FRONCZAK, Ewa, War Studies University, Poland, EWASLEBZAK(a)INTERIA.PL, "Global Coalition Against Daesh – what's next?" Forced by the latest crucial military defeats, ISIS has changed its modus operandi and entered the next form of existence – covert networks, underground structures and sleeper cells, recently especially active in the MERV region. Nonetheless, this ongoing transformation/development is not a spontaneous or just counter-reactive move made by an amateur group of terrorists, as many could think. According to an author's anonymous source, it has been planned and closely prepared for the last three years. Thus, what we are observing now is an execution of a well-knitted strategy for surviving in different than already conditions. It is the time when we can see the ISIS surprising flexibility and ability to adapt; and it is the time that requires the global community to react in an equally flexible and sensible manner. Secretary of State, Michael Pompeo, talking about a need for new effective ways to attack Daesh proved that the Global Coalition is aware of the change in the nature of its enemy and, consequently, new challenges connected with it. So, what should be the Coalition's focus now? What actions should they avoid to improve its effectiveness? What might be those "new effective ways" to attack Daesh? The author's findings to the mentioned questions are derived from a critical literature and online sources (reports, statistics) review, and

first of all, from her personal research in the form of in-depth interviews (anonymous and not anonymous) conducted around the world with military and non-military experts from different organizations and institutions; for example, the Council of Europe, European External Action Service, European Union Counter Terrorism Coordinator's Office, SETA think tank, Polish Ministry of Foreign Affairs.

GLIWA, Sylwia, War Studies University, Poland, sylwiagliwa(a)gmail.com "The social media as a weapon to influence a society." The time when social media were social communication medium for Internet users went forever. Right now, social media are a valuable place for obtaining information about the users, social moods, main trends, opinions as well as networking platform for social organizations and movements and ultimately a new way of conducting warfare. The main features of social media such as information transfer speed, absence of gatekeepers, lack of time and geographical constrains, direct access to different social and political groups make them a good tool to control public opinion and ultimately influence society. Due to this fact the social media could be treated as a weapon both for state and not-state actors such as terrorists' organizations. Nowadays, social media gives a possibility to have an enormous influence on society and can be a weapon both for foreign and local government, social group or for terrorists. This paper attempts to answer the question how the social media can be used as weapon to influence society. In order to answer this question, the analysis of problem of social media influence on public opinion and social moods will be presented. What is more, in further part of the article the problem of disinformation, propaganda and fake news will be depicted in context of social media and potential influence on society. In the 21st century information war, every Internet user can be participant. Taking into consideration this thesis, the paper ultimately attempts also to recommend certain defence tools and try to answer the problem of potential coordination between social media platforms. The research methods used in this paper includes: Continuous desktop study - analysis of publicly available documents, free-form interviews with experts and case studies method.

KAPUSCIAK, Aleksandra, War Studies University Poland, aleksandrakapusciak(a)gmail.com, "Polish Crisis Management System" [inferred title] The paper presents the elements of critical situation management system, which currently operates in Poland. The research paper consists of interviews with experts who deal with problematic aspects of crisis management. Additionally, basing on the example of natural disaster - the flood, which took place in Poland from May to August 2010, the opinions of the rescuing actions have been introduced. The main aim of the paper, apart from the presentation of tasks and the structure of crisis management system in Poland, is to indicate (inter alia basing on the opinions of interviewees) the neuralgic areas, functioning of which requires immediate improvement.

KUCZABSKI, Mateusz, War Studies University, Poland, m.kuczabski(a)akademia.mil.pl "Do New Technologies Change the System of Force in the International System?" We are witnessing dynamic changes in technology and technologies, and innovations have become a determinant of social and economic development of countries. Contemporary innovative activity is a derivative of the twentieth century's increased dynamics of innovation in various areas of human activity, including the most significant innovations in the field of military: in arms and defence. The arms race of

two great political, military and ideological blocs (NATO and the Warsaw Pact) forced innovation. Military inventions in the early twentieth century more and more often gained the strength of dual use, so they proved useful also in the civilian area. The industrial revolution of the nineteenth century provided knowledge about how technological asymmetry can translate into geopolitical inequalities. Observing the current situation, it can be stated that nothing has changed in this respect, the mechanisms remain the same. Societies are in a place where barriers between digital and physical technology and between synthetic and organic materials have been removed. The technological race is on. Modern technologies "promising" level and dynamics of change comparable to that caused by the power of steam, the emergence of electricity and information technology. This revolution is fundamentally different from the ways in which ideas were previously undermined. The key question is now: what does it mean to be human? The answers are provided by neuroscience, which expands knowledge about the ways of human action and the nature of human beings. Regardless of whether the current deep transformation strengthens or weakens human dignity, there remains the problem of relations in relation to war, changes in the context of international security. Modern technologies were adopted for the subject of research, which were considered in the context of their possible impact on the change of the power system in the international system.

KWAPISZ, Klaudia, War Studies University, Poland, kwapiszklaudia90(a)gmail.com, "Dimension of military security of the Three Seas Initiative project - on the example of Austria, the Czech Republic and Slovakia" The Tree Seas Initiative is a cooperation project of twelve European countries located between the Balti [truncated abstract]

LOO, Bernard, RSIS, NTU, Singapore, isfwloo(a)ntu.edu.sg, "Strategic Coherence in Military Modernization—Towards a Framework of Analysis" The concept of the arms dynamic teaches us that states "both acquire armed forces and change the quantity and quality of the armed forces they already possess" as a result of pr [truncated abstract]

MASZCZYNSKA, Magda, m.maszczynska(a)hotmail.com, "Deterrence, Security and Modern Counter Terrorism," In the current state of global affairs, there is a heightened sense of concern due to the risks and threats posed by adversaries - either to our national security and/or democracy. Some of the most concerning potential threats are those posed by the propagation of ex-ISIS fighters in many countries worldwide. The national risk levels of a terrorist attack tend to fluctuate from high to imminent and therefore security services are on constant high alert. Furthermore, there is an overwhelming number of children who have experienced prolonged and severe trauma that emerged from war as well as exile- either forced or induced by relatives. The question that cannot be ignored is what will these young people be like in 5-10-15 years' time? Is there a possibility that their constant hopeless situation will foster grounds for future radicalisation? The same fate may be contemplated for adults. Other challenges include: cyber threats, hybrid warfare, and the socio-political situation in China, Russia, and MENA region that has created a dilemma for Western states contemplating whether or not to get involved. This presentation will consist of an analysis of the current multidimensional threats that cannot be effectively addressed or handled using current defence mechanisms. Defence tends to be

reactive however deterrence is proactive. Deterrence therefore offers more versatile, yet powerful approaches to contemporary threats, as it is itself a risk management tool. Consequently, deterrence should play a central role within counter terrorism operations and initiatives. The author will present a comprehensive critical analysis of the current deterrence strategies and will propose further recommendations of a multidisciplinary nature that will aid in guiding the approaches undertaken by NATO, UN and governments, as well as the international community.

NORRI-SEDERHOLM, Teija and Aki-Mauri Huhtinen, National Defence University, Finland, Teija.Norri-Sederholm(a)mil.fi, Aki.Huhtinen(a)mil.fi, "Social media as the pulse of national security threats," Social media is a complex phenomenon and it has become increasingly a security threat. The idea of easy access to network, freedom of speech, and equality of knowledge and democracy have created at the same time the possibility to negative distribution of disinformation. Therefore social media is currently one of the key channels for distributing disinformation and a platform for cyber violence. Over the past five years, disinformation has evolved from a nuisance into high-stakes information war in the rhizome of the internet. The small countries, like Finland, are increasingly depended on the global information flow and at the same time to be more influenced by the increasing disinformation. Social media has become a growing crucial factor in relation to national security, because weaponized information is one way to foster polarization and consequently to destabilize a population. Therefore, citizens have an essential role as part of the comprehensive security. Every Finn has some kind of relationship to national defence. A part of this relationship is their trust to the Defence Forces and to other public safety authorities. Trust plays a predominant role in stable societies and it has a major impact on society's susceptibility to disinformation and resilience in the event of disruptions after the realisation of a threat. Social media is one of the arenas where the Defence Forces need to act in maintaining the trust citizens have. In addition to delivering the right information, they need to observe and react to misinformation and disinformation related to the Defence Forces. Furthermore, it is essential to address issues related to young people, who have lived all of their lives in social media. They are both influencers and targets of influence. It is fundamental to understand the dark side of their agency in social media and what is the effect of this on national security.

SOSNOWSKI, Piotr, University of Warsaw, p.sosnowski2(a)uw.edu.pl "The historical context of the psychosocial and economic determinants of the Iraqi Kurdistan security policy," Iraqi Kurdistan at least since 1991 meets the qualification of a state under international law defined by the 1933 Montevideo Convention on the Rights and Duties of States. Moreover, Iraqi Constitution from 2005 defines its territory, government, security forces, and partly the capacity to enter relations with other states which de facto are much wider than de iure. Due to specifics the Iraqi Kurdistan significantly differentiates against entities qualified in literature as de facto states or quasi-states. Autor assumed that the Iraqi Kurdistan is a sui generis state which conducts its specific security policy. Aim of the research is to conceptualize the psychosocial and economic determinants of the Iraqi Kurdistan security policy. The authors' approach will be supported by explaining the historical context. The

main hypothesis is based on the assumption that the psychosocial and economic determinants are partially constructed by historical trauma and the international role of the Kurds in which they were placed from the first half of the nineteenth century. The following work is based on the field research conducted in the Iraqi Kurdistan in March and April 2019. Research has applied the triangulation of qualitative and quantitative methods, which include the following: open interviews with Kurdish decision makers; analysis of the manuscripts, literature, and press; psychological questionnaire survey. [long abstract available]

SWIEBODA, Halina, War Studies University, Poland, h.swieboda(a)akademia.mil.pl
"Information Processes As A Tool For The Control Of Society." Social control has no negative connotation, the roots of this process go back to antiquity, and contemporary understanding is derived directly from social social society. The term means to exert pressure on an object to trigger a particular behavior or action. The object given to the control is aware of the control processes, therefore this is not a bad thing (eg social and economic control processes). The control is associated with manipulation, the essence of which is exerting influence, but it is done without the knowledge of the controlled object. The importance of manipulation has not changed from antiquity to the present day. None of the previous concepts referred to methods by which one could be guided by another or different person or persons. The practice of the last years proves that one should seriously consider the threat of manipulation on the part of various state and non-state entities, and in particular from Russia. Disinformation is now part of the Russian military doctrine of strategy. The subject of the research includes information processes which, in a veiled way, can lead to disintegrative social processes that directly lead to the loss of sovereignty. Based on the planned research, the aim is to diagnose the level of information threats for socio and social infosphere based on the analyzes of expert opinions, statistics, and comparative studies using the system analysis methodology.

WU, Shang-Su, S. Rajaratnam School of International Studies (RSIS), Nanyang Technological University, Singapore, issswu(a)ntu.edu.sg "Southeast Asian Military Modernisation after the Cold War." The termination of the bilateral confrontation between the two superpowers, particularly the collapse of the Soviet Union, meant no more affluent military aid, and the regional countries thus began their respective approaches to modernise their military capabilities. Using the public information, this project adopts a framework of military obsolescence to present a structural and deep view on the trajectories of regional military modernisation, and the impacts on the regional security. Generally, the Southeast Asian military modernisation is not likely to destabilise the regional situation with major wars, but their capacity for operations other than war (OOTW) may be insufficient. As most regional countries with the current state of military modernisation are unlikely to conduct warfare, positive and negative impacts appear. In the positive side, despite some harsh statements used between countries, most regional ones would not seriously consider wars as their policy tool. They may attempt to deter or even move to brinkmanship, but the reality of inadequate military capability would serve the role of linchpin. Regarding the negative side, most regional countries would be vulnerable, despite in different levels, to external power, evidenced in their inability in the South China Sea. The inconsistency between national capability, as well as

affordability, and their territory and geostrategic circumstances has gradually exposed during the post-Cold War era. [full paper available]

WG7 Armed Forces and Society

Chair: Rene Moelke, Netherlands Defence Academy, rene_moelker(a)yahoo.com

BEAULIEU-BROSSARD, Philippe Centre for Military Studies, University of Copenhagen & Canadian Forces College, pbeaulieub(a)gmail.com, “A Typology of Critical Thinking in Canadian and US Armed Forces ,” This paper provides a typology of critical practices to understand the effects of the rise of critical thinking, its limits and implications in Canadian and US armed forces. Building on Boltanski, the paper argues that while metacritique (i.e. systemic critique or holistic critique) provided a remedy to several blind-spots in armed forces, it is often translated into ordinary critique, thus leading to ordinary forms of emancipation serving the traditional vocation of armed forces: making sure that the State does not fail the next test of strength. This typology is based on more than 70 interviews, participant observation and textual analysis.

BOUCHARD, Second Lieutenant Marianne, Queen's University, Canadian Armed Forces, 18mb77(a)queensu.ca “Impact of Women in 1990s Peacekeeping” In 2000, the United Nation Security Council's landmark Resolution 1325 established the importance of involving women. in the prevention and peaceful resolution of conflict, and urged to increase the participation of women actors in peace and security (United Nations Security Council:2000). In Canada, the Elsie Initiative for Women in Peace Operations aims to find creative ways to deploy more women in peace operations (Prime Minister of Canada: 2015). Similarly, research on women in peacekeeping focuses on finding ways to increase women's participation in all aspects of peace operations. It tends to emphasize the importance of women in such operations-regardless of gender perspective. This leap reveals a starting assumption: the presence of women in peacekeeping operations is seen as an enabler for mission success. Some Canadian scholars question that line of thought and suggest to incorporate an approach based on gender to the military institutional ethos (Baruah: 2017; von Hlatky: 2017). Collaborating to this approach, this project will delve into earlier peacekeeping operations to explore the relationship between gender and military effectiveness. Beyond statistics, there is almost no information about what roles women involved in early peacekeeping operations may have played. Despite that gap in knowledge, the United Nations (UN), the North Atlantic Treaty Organization (NATO) and Canada, for example, promote policies embracing an increased number of women in peacekeeping operations as a way to ensure mission success (United Nations Security Council : 2000; NATO: 2011; Prime Minister of Canada: 2015). The proposed work aims to examine this assumption by looking in detail at the roles played by women in peacekeeping and to propose indicators to evaluate the impact of gender. in peacekeeping operations, through mixed methods: quantitive, sex-disaggregated data and semi-structured interviews of military women and men involved in selected peacekeeping operations. The following research questions will guide the inquiry: What roles were women playing on the ground? Did they perform specific tasks because of their gender? How did the military men

perceive the contribution of their female counterparts? In other words, this project seeks to analyze the nature of the role of women in peacekeeping operations to determine whether, and if so, how, it affected operational effectiveness.

CARVALHO, Júlio, Military Academy Research Center (Portugal), carvalho.jmcfg(a)mail.exercito.pt, "Proposing a model of strategic cooperation between military and health services" [inferred title] The inclusion of public health threats in the scope of security, which gave rise to the concept of health security, has reframed public health studies as a transdisciplinary field of knowledge. Considering the ubiquitous role of the Health Services in military institutions, and the importance on how these Services are used and operate for the military in general, Military Science research is imperative to explain the phenomena associated with a vast range of Military Health activities in terms of their strategic and operational dimensions. Currently, in the face of evolving threats to health security, 196 States have agreed to comply with the 2005 International Health Regulations in detecting, assessing, notifying and responding in a timely manner to potential public health emergencies of international concern, as well as to develop response capacities through a coordinated multisectoral approach. To do so, countries must adopt a planning process to which strategy is particularly relevant, as is integrating the aspects related to cooperation between the Military Health Services and the Public Health sector. The expansion of the scope of the 2005 International Health Regulations in the terms addressed in this study has created the need and the opportunity to integrate the Military Health Services in the national response plan for public health emergencies, and thus strengthen the State's core capacities. Integrating and analysing the data obtained during the research process, it was possible to identify key elements from which to define a proposed model of cooperation between the Military Health Services and the Public Health sector according to their ontological, structural, operational and executive dimensions, such as, memoranda of understanding, joint or interoperable health information systems, preparedness and contingency plans, simulation exercises, resource-sharing partnerships, staff exchanges, multisectoral working groups, research, development and innovation projects and training, communication and awareness initiatives.

DRAPIKOWSKA, Barbara, War Studies University, Poland b.drapikowska(a)akademia.mil.pl,"Gender perspective in Polish army." The presentation concerns the issue of gender perspective in Polish army. The key points of presentation are gender definition in polish society and polish army, presents statistics of women military services, the awareness of gender perspective in the mind of men soldiers. The presentation shows results of qualitative and quantitative research in Polish army (both women and man). The army is the institution has been created by man and for man from many ages. Nowadays, the women are minority in army. There are dominated masculine style of work and communication. It is connected with gender, culture, stereotypies and society`s mentality.

GĘBSKA, Marta, War Studies University, Poland, m.gebska(a)akademia.mil.pl "Economic dimension of security in the national security strategies of Austria, Hungary and Slovenia." Economic security is one of the key parts of the state security, it influences it as well as it is the result of it. The countries perceive the threats to [truncated abstract]

LIBEL, Tamir, Visiting Scholar University of Trier, tamirlibelphd(a)gmail.com "The Rise and fall of the (Study) of the Military Profession: From the Sociology of the Military Profession to Sociology of Security Expertise," Since Huntington (1957), the understanding of civil-military relations of the officer corps and the relationship between the armed forces and society has drawn upon the wider theoretical literature of professions. However, over time, both theoretical advancements (e.g., development of more conflictual theoretical models) and societal changes (e.g., declining autonomy of professions from the state and markets, competition over jurisdictional domains with other types of vocations) have impacted the explanatory power and suitability of employing the profession(al) theoretical concept to the study of contemporary militaries. Recently, Eyal and Pok (2015) have provided a review of the literature on professions and its pitfalls as well as an alternative conceptual framework. Although they have demonstrated its utility in the study of the security domain, their research discussed neither the military nor the officer corps. Therefore, the current paper has two aims: (1) This study will draw on Eyal's and Pok's review of the evolution of the literature on professions and discuss it in comparison to the literature on the military profession; (2) Eyal and Pok's alternative framework will be adapted to the military domain.

LUNDELL, Emil, Swedish Defence University, emil.lundell(a)fhs.se, "Officer selection: Results from a mixed-method evaluation of the selection process to the 3-year academic officer programme in Sweden." In addition to basic qualifications, the applicants to the officer programme are required to pass physical tests, a medical examination and an aptitude test. The applicants then proceed to the suitability assessment consisting of an interview with a psychologist, a profession interview with an experienced officer (rank Lt. Col. or above) and thereafter a commission board decides whether the applicants are suitable for officer education. During 2019 the suitability assessment process has been evaluated through semi-structured observations of profession interviews and sessions of the commission board, evaluation seminars to discuss the actors experiences and statistical analysis of the applicants' ratings from the interviews and the commission board. Results show that profession interviews and sessions of the commission board were conducted in a systematic and thorough manner and that profession interviewers make fair assessments not affected by applicants' backgrounds. The results also show that the inter-rater reliability shows fair agreement between the interviews. Future research should focus on establishing the assessment's' construct validity through item response theory and the suitability assessments' predictive validity for academic achievement.

NILSSON, Joel, Swedish Defence University, joel.nilsson(a)fhs.se "A qualitative study on working conditions in the Swedish Armed Forces," Over the last two decades, the Swedish Armed Forces has gone through a period of downsizing, as well as force restructuring and the abolishing and reintroduction of conscription. In the recent threshold from a voluntary to a conscripted system, it is of importance to retain contracted soldiers in order to staff the organization. Against the background of the armed forces strive for recruitment, due to the shortage of personnel in several organizational levels, it is of considered value to investigate and deepen the knowledge of existing labor force. This study focuses on the experiences of

employed soldiers, and aims to capture experiences of working in a transforming organization. The objective is to examine a variety of organizational and structural work-related conditions and their impact on the employee and organization. The study is based on qualitative interviews with employed soldiers with a varying degree of professional experience. Findings highlight the degree of autonomy and control in assignments, experiences of organizational and financial restrictions and preconditions for maintaining professional and practical skills over time. Furthermore, results contribute to scientific debates concerning factors of importance to employee retention.

ÖSTERBERG, Johan, Swedish Defence University. Johan.Osterberg(a)fhs.se "Filling the officer ranks? The reintroduction of conscription." Since the abolishing of conscription in Sweden in 2010, the Swedish Armed Forces (SAF) has not been able to recruit enough soldiers to basic military training one single year with voluntary recruitment. The consequences of this has been great vacancies on soldier level, but also on the officer level, since basic military training is a pre-requisite for admission to the three-year academic officer program. This circumstance, and the fact that there were no officer´s program starting in 2003 and 2004 due to budget cuts, and furthermore retirements within the officer corps has created a situation where there will be huge vacancies on the officer level OF 3 and above (Major and above) in five years. In order to increase the influx of youth entering the military, a gender-neutral conscription was introduced as a complement to the voluntary system. The SAF is again moving into a national defence, instead of international missions, and furthermore the more unstable situation in the Nordic region, stress the need to increase the number of soldiers. In 2019, one year after the re-introduction of conscription, the applications and the proportion of women applying to the officer program reached an all-time high.

PEDERSEN, Thomas, Royal Danish Defence College, thpe(a)fak.dk "Happiness is a warm gun? Recruitment, retention, reintegration and expeditionary operations." [inferred title] Recruitment, retention, reintegration. Are boots on the ground still essential to the state's homeland security? Are boots on the ground still essential to the state's engagement in peace and stability operations in distant theatre [truncated abstract]

ROSTOKS, Toms, senior researcher, Center for Security and Strategic Research, National Defence Academy of Latvia, toms.rostoks(a)mil.lv, "Staying the course: Latvia's choices between conscription and all-volunteer force since 2014." This study examines Latvia's choices with regard to conscription vs all-volunteer force since 2014 when Russia's annexation of Crimea took place and the military conflict in the eastern part of Ukraine commenced. Latvia transitioned to an all-volunteer force in 2006, and this move took place as part of a wider context where a number of European countries undertook a similar transition since the end of the Cold War. Transitioning to the all-volunteer force was supposed to contribute to a more professional, versatile, deployable and lighter military that would be perfectly suited for out-of-area operations which were the staple of the military profession in the Western countries in the aftermath of the terrorist attacks against the United State on 9/11, 2001. The conscription vs all-volunteer force debate reappeared, however, with the onset of the military conflict in eastern Ukraine. Latvia's southern neighbour Lithuania has reintroduced military draft, and so has Sweden, while Estonia and

Finland never abolished conscription. The changing security environment in Northern Europe, the increased emphasis on the need to develop a more capable military, and the choices of Latvia's neighbours with regard to conscription have increasingly put pressure on Latvian government and are an occasion for re-evaluating its choices against various conceptual arguments for and against conscription. This study discusses various arguments from academic literature on conscription and tests them against the position of Latvia's key decision-makers, government officials and experts from the defence sector. The empirical part of this paper is based upon interviews with decision-makers and defence experts and the available public opinion polls on the subject of conscription.

SCHUTZ, Torben, German Council on Foreign Relations, schuetz(a)af.dgap.org, War, Society, and Temporal Structures." Several western states react to a changing security environment with a renewed focus on conventional military conflicts with peer competitors. Given the focus of Western forces on counterinsurgency missions for the past 30 years, this marks a significant change in the mode of warfare for which military forces must train and equip. One perspective of change that is emerging from technical innovations in weapon systems is the temporal dimension – i.e. a renewed focus on speed in warfare. This abstract considers how the temporal characteristics of warfare align with the predominant temporal structure in a given society – in this case, a generalised "western" society. Of the four temporal characteristics of war – duration, frequency, sequence, and opportunity – the first two are most relevant for this analysis. Since different types of wars and warfare can have different temporal characteristics, a differentiation between conventional, hybrid and counterinsurgency warfare is necessary. Moreover, temporal characteristics may differ per the tactical, operational, and strategic levels of war The question then arises whether societal temporal structures can cope with the diversity of temporal requirements from different military operations, what happens if they are asynchronous and how that impacts strategy. Asynchrony in the primary temporal modus of any armed forces and their intended mission can have severe detrimental consequences for their performance. Conversely, synchrony should result in high military effectivity. This analysis aims to contribute to the positive effect that military studies can generate for society in that it helps to understand and determine which political-military options are worth pursuing or at least what their potential costs might be if they do not conform with existing societal and military temporal structures. [long abstract available]

SHARMA, Bharati, Government Science College ,Pachpedi Civil lines, Jabalpur, bharatisha(a)gmail.com, "Misinterpretations of religion causing conflict; with special reference to India," World has faced extremely diabolic forms of human mind in the most terrible wars fought in the name of religion from time immemorial, On some occasions to safeguard a religion on others to spread it. At present we live in a world where each nation is striving for supremacy in the fields of arms and innovations. As a consequence we find the main religions of the world busy in strengthening themselves in order to accomplish their respective missions. Even terrorist groups with religious allegiances on the rise although a religion is a collection of cultural systems, belief systems and world views that establishes symbols relating humanity to spirituality and, sometimes, to moral values. . The world's largest religious groups are Christianity, Islam, Buddhism, and Hinduism estimated to account for between 5 and 7 billion people. India is the birth place of

four of the world's major religious traditions; namely Hinduism, Buddhism, Jainism and Sikhism. Throughout Indian history, religion has been an important part of the country's culture it being the birth place of four major religious traditions namely; Hinduism, Buddhism, Jainism and Sikhism . Religious diversity and religious tolerance are both integrated into the very fabric of this secular state by law and custom. A vast majority of Indians associate themselves with a religion. On examining the ancient history of the country we find that foreign invasions and conquest have introduced new religions that were not Indian originally. . The then natives of India were forced to adopt the ruler's religion .Today after several generations we have several well established religions here. Though the practices are different the teachings of all religions are similar and equally humane, but their misinterpretation has resulted in serious conflicts and mass havoc, after its independence in 1947 India declared itself as a secular country and allowed its citizens to follow their own religion while respecting all other religions. Here the author has tried to analyze the key determinants responsible for the religion based conflicts in India and how Military Science education and awareness could potentially ameliorate such conflicts.

URYCH, Ilona, War Studies University, Poland Ilona.urych(a)wp.pl "Education for safety in Poland – the essence and content of the subject of education" Characteristics of the being and contents of the teaching of a subject are a purpose of the paper education for the safety which is appearing in the Polish education. Presented deliberations oscillated will be around the following theses: 1. September 2009 The Ministry of National Education in agreement with the Ministry of National Defense in Poland introduced in the core curriculum of the gymnasium and post-gymnasium school a new subject of education, which was education for safety. Thus, the previously conducted subject was replaced - defensive adoption. The essence of the change was the reorientation of threats of typically military character to the concentration of educational activities on the issues of peace threats, as well as the ways of behavior in crisis situations. 2. The consequence of identifying security not only with military aspects was the transition from strictly defensive education to education for broadly understood security. In Poland, these transformations were accompanied by changes in the formulation of educational objectives, in which, apart from the issue of security threats, the problem of challenges, ie new situations that may only turn into threats, is increasingly taken into account. 3. Education for safety is a continuous process, encompassing a number of activities in the field of upbringing and education especially for young people, including transferring knowledge, shaping attitudes and developing personality in order to function efficiently in the situation of various threats, and every day to protect your health. 4. The curriculum content of the school subject of education for safety concerns mainly: learning the essence of state security, preparing for emergency situations, passing skills in the basics of first aid, shaping attitudes conducive to health. The curriculum of education for safety is currently carried out in primary and secondary school, as well as during studies and specialist courses.

WG8 Defence Economics and Management

Chair: Robert Beeres, Netherlands Defence Academy, rjm.beeres(a)mindef.nl
Co-Chair: Markus Gauster, National Defence Academy Austria, markus.gauster(a)bmlvs.gv.at

BEERES, Robert, Netherlands Defence Academy, rjm.beeres(a)mindef.nl "European burden sharing in counter-piracy operations. A quantitative analysis of military contributions 2009-2017" Counter-piracy operations in the West Indian Ocean constitute major post-Cold War missions. This paper, by applying the Joint Product Model, analyzes the burden sharing behavior among European nations regarding these operations from 2009 until 2017. Contributing military ship and aircraft data has been obtained from three operational headquarters conducting counter-piracy missions. Atalanta and Ocean Shield data showed the highest validity and, subsequently, have been used for further analysis. From the research, it appears that counter-piracy operations are primarily a European concern. Spain is – by far – the largest over-contributor, while the United Kingdom is the largest under-contributor and, within Europe, can be considered the main free-rider in this respect. The United States only contribute 10 per cent of what European nations provide. Actually, contributing ships and aircraft show a medium but significant correlation to economic variables such as GDP, value of trade and population. However, there is no significant relation between conducting counter-piracy operations and defense spending. The analysis of the absolute and relative contribution to the operation, together with the chosen way of assigning units to one of the operational mission, provides input for further study on the underlying reasons to contribute. After all, nations primarily contribute to operations, like counter-piracy, to support national interests.

KANANOJA, Senior Lieutenant Lauri, lauri.kananoja(a)mil.fi, "How about Chicago or Harvard? Examination of EU defence market competition theory and policy." Undeniably the European Union (EU) has been a success story when considering peace and markets. As a world's biggest peace operation the EU has succeeded in securing that wars between the oldest continents sovereign countries are improbable. As the world's largest single common market the EU has contributed efficiency improvements across space and time by liberating the inside markets. However, exceptions in the regulatory framework still exist and EU defence market for one suffer from defence material trade barriers and restrictions between member states, keeping protectionism, inefficiency and duplicate projects alive. This paper examines the current EU competition policy in defence markets. The paper focuses in the reform of a regulatory framework in defence material exchange between EU member states, reflecting directive 81/2009 and article SEUT 346, their rationale and implementation across the EU. A study conducted by the European Commission reveals that competition between the member states does not work despite the reform. This works as a starting data in analyzing what was initially to be delivered with the reform and why the current regulation fails to increase competition to a remarkable degree. Second, the paper studies the implementation of the directive into member states' national legislation and compare the differences with respect to anti-competitive actions taken in the latest defence material projects' procurement methods. Third, the paper uses a regression analysis to examine whether anti- or pro- competitive procurement methods reflect on defence material prices. As results, this paper illustrates the link and relations between competition theory and policy in EU defence markets, reflecting Chicago and Harvard School theories. Accordingly, the anti- and pro-competitiveness methods taken in EU

defence market is revealed via prices to restrictions set for competition, e.g. industrial partnership requirements. The results provide insights for further development of e.g. European Defence Fund.

LEHTONEN, Juha-Matti, National Defence University, Finland, juha-matti.lehtonen(a)mil.fi, "Economic Sanctions." Until current sanctions on Russia, no economies of comparable size have been subjected to major sanctions since Italy in 1936 and Japan by United States in 1940 (Gould-Davies, 2018). Neither of these sanctions achieved their goals. On the contrary, they may well have contributed to Italy's alliance with Germany and Japan's attach of Pearl Harbor. The early studies on sanctions tended to be case studies concentrating on few prominent cases such as the League's sanctions on Italy or USA's against Cuba and drawing a general conclusion of that the targets don't yield (Morgan et al. 2009). However, that view was seriously questioned by an influential empirical study by Hufbauer et al. (1990) who found that 34 % of sanctions cases were in fact successful. Sanctions against Irak in 1990's created humanitarian crisis. Targeted sanctions were developed in response to such humanitarian issues (Gordon, 2011). They are designed to hurt the elites supporting the regime while minimizing the hardships to general population (Drezner, 2011). Pape (1997) performed his own analysis of Hufbauer et al. cases and found sanctions successful in only 4 % of cases. Drury (1998) points out that Hufbauer et al. analysis is essentially bivariate where the lack of control variables may lead to spurious relationships. Smith (1995) criticises the empirical sanction research as invalid, because when looking into success of implemented sanctions, the threat effect of sanctions is not observed. Morgan et al. (2009) collected sanctions data independently of Hufbauer et al. and found, on a matching period, something like 50 % more sanctions cases while missing cases lead to biased results. For significant policy issues against major targets, such as Russia, implementing sanctions is likely to be of limited use. Right now, the economic sanctions are more frequently as well as innovatively employed by US Trump administration. [long abstract available]

ZOMBANAKIS, George-Andrew and Odysseus Katsaitis, American College of Greece, gzombanakis(a)acg.edu "Reading between the Lines: A Defence - Expenditure Function Reveals NATO Cohesion Issues." This paper deals with the extent to which a typical defence expenditure function can reveal a great deal more than what meets the eye as regards the problems created by the recent tensions prevailing between selected NATO allies. We focus on the friction between Greece and Turkey as part of the overall tense environment and the way such an environment affects the defence expenditure function of the former. We demonstrate that under these circumstances, the role and importance of traditionally used variables in such a function may undergo considerable changes. Thus variables representing the economic environment, the alliance spill over - benefits and the outside threats can assume a considerably different meaning, role and input significance during tensions within the alliance compared to what traditional theory would suggest. The paper proposes a number of additional variables to be included in such a function tailored to represent the particularities of the frictions crated within the NATO. Finally, we employ a forecasting exercise in an effort to assess the extent to which such an environment may be considered as being viable for the alliance cohesion.

WG9 Military Education

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Co-Chair: Nuno Santos Loureiro, Military University Institute, Portugal, loureiro.nars(a)ium.pt

BEAULIEU-BROSSARD, Philippe, Centre for Military Studies, University of Copenhagen & Canadian Forces College, pbeaulieub(a)gmail.com, "Eight Design Thinking Journeys at Canadian Forces College." This presentation offers a summary of 8 design team journeys during the exercise Shifting Sands focusing on addressing 4 challenges related to West Africa at Canadian Forces College between June 10-20, 2019. The purpose is to understand design thinking as an experience as well as its promises and limits in practice in armed forces.

BITZINGER, Richard, S.Rajaratnam School of International Studies, isrbitzinger(a)ntu.edu.sg, "Teaching Defense Economics as a Practical Science." Defense economics is described as a field concerned with the economic effects of military expenditures, and of the management of armed forces in peace and war. This paper suggests an approach for teaching defense economics in a practical sense that helps military and civilian defense personnel better understand theory and practice of military spending; the practice and politics of defense budgeting and spending; the gap between arms procurement and arms acquisitions; the role of local defense industries and indigenous armaments production; arms imports vs. domestic production and acquisition; and the impact of arms racing.

DAHLBERG, Rasmus, Royal Danish Defence College, rada(a)fak.dk "Teaching Total Defence." Following an era of international operations, the Danish defence is once again looking towards territorial defence and domestic security as core tasks. This prompts novel approaches to military education as well as a stronger integration of civil-military authorities (armed forces, police forces, fire/rescue services, prehospital emergency management etc.). The concept of "Total Defence", incorporating all the state's resources that can be utilized in the face of crisis and conflict on a large scale, has thus returned to the agenda in Denmark as well as other European countries. Based on current cross-sectorial projects at the Royal Danish Defence College, this paper addresses the challenges and possibilities that lie ahead when designing new research-based military educations for the benefit of society as a whole.

KAIMAKAMIS, George and Konstantina Panagiotidou, Hellenic Military Academy, gmiamis(a)sse.gr, konpanagiotidou(a)gmail.com, "The course of Operational Research in Hellenic Army Academy: Objectives and Teaching Techniques" Quantitative Methods play an important role in the curriculum of Hellenic Army Academy. Cadets are taught Game Theory (presented in ISMS Conference 2017), Decision Theory (presented in ISMS Conference 2018), Operational Research and basic courses of mathematics such as Advanced Calculus, Mathematical Programming, Theory of Probabilities and Statistics. The aim of this talk is to highlight the importance of teaching Operational Research in Army Academies in order to answer the question what unique added value it provides for the security of the state, a community of values and the people living in it. Operational Research strengthens the ability of cadets to solve decision-making problems. They learn to

structure and analyse such problems by breaking down them into basic components and solve them by using techniques from mathematical modelling, mathematical optimization, statistical analysis etc. In this way they are prepared to act as strategic advisors at the interface with political decision-making level. Concerning the course cadets are taught operational research during the fourth year of their studies. It is obligatory for all of them. Firstly, the course 's objectives, which are divided into three categories, cognitive, psychomotor and affective, will be analysed and discussed. Next, the used teaching techniques and methods will be presented, since it should be taken into consideration that teaching in Hellenic Army Academy requires to adjust teaching in the military framework. At the end of the presentation a draft of micro-teaching of the course is provided.

KAMIO, Sayaka, National Defence Academy of Japan, sayaka.kamio.h63(a)kyoto-u.jp

"Developing the STANAG-based integrated English reading materials and assessment for military personnel," The purpose of this study is to develop the English learning materials based on the STAGAG 6001 defined by the North Atlantic Treaty Organization (NATO), focusing on the Japanese military cadets who are studying English for specific purposes (ESP) as second language (ESL) and foreign language (EFL). In particular, this study develop the reading materials and assessment, integrated General English (GE), English for academic purposes (EAP) and ESP. Background: English proficiency is vital for military personnel to conduct operations internationally. As for the English proficiency for military, the NATO defined the standard of STANAG 6001 (NATO, 2014). Based on the detail of standard, each nation has responsibility to develop own English learning materials for military cadets which suits on their needs including linguistic background. Method: In order to develop the specific English learning materials, this study based on not only the STANAG 6001 standard but also theory of ESP material development and second language acquisition. First, as for the first step to develop ESP materials, this study conducted the needs analyses (NA): questionnaire, semi-structure interview, and placement test. Second, based on the STANAG standard, the reading materials including assessment forms were developed in accordance with the STANAG 6001 level 2 and 3 ('functional' and 'professional' in the STANAG, respectively). Third, the reading materials and assessments were adopted as the self-learning for Japanese cadets and the academic achievement and further needs were examined. Result: The NA showed that the Japanese cadets were interested in learning English of military-specific topics rather than general topics, although the STANAG 6001 assessment have adopted the general topics. Since the interest of learning specific military-related English may improve the learner motivation and academic achievement eventually, the reading materials in this study included military-specific topics, as well as general topics in accordance with the STANAG assessment. As for the military- specific topics, considering the geographic situation and military-related incidents in Japan, the authentic English texts regarding natural disasters and sarin attack in Japan were included as a part of ESP. According to the NA, it is also suggested the further learning of participles and relatives improve reading proficiency in Japanese cadets. Therefore, added to the reading materials in accordance with the STANAG assessment, additional

materials specifically for the participles and relatives were also designed. The research is on-going and main findings in academic achievement and further needs will be presented at the ISMS 2019. Conclusion: This study developed the English reading materials and assessment for Japanese cadets based on the STANAG standard. Particularly, the integrated materials, which include GE, EAP and ESP topics, were developed based on the needs analyses. The presentation will conclude with implications and recommendations for further curricula and material development

LAST, David, Royal Military College of Canada, last-d(a)rmc.ca "Research agenda, data and methods for studies of transnational military professionalism," How do we, and how should we, study the transnational implications of professional military education (PME)? This paper describes why transnational studies of PME are important to most of the world's countries. It survey studies of PME undertaken over the last ten years, with the aim of identifying gaps and developing a research agenda. There are gaps in access to evidence-based curricula and collaborative research on professional problems to inform PME. Both conceptual frameworks and data collection and sharing efforts in PME fall short of the breadth, rigour, and comparability that has generated useful collaborations in other professions (e.g. the Campbell Collaboration on social interventions). This suggests comparing PME to other professions in the same country, and to similar professions in other countries. Law, engineering, and medical professions routinely collect and benchmark curriculum (context, content, and pedagogy) and there are existing frameworks and software for assembling and using educational data bases, especially in medicine. National idiosyncrasies and an "inverted profession" make PME more like educating teachers than educating doctors. PME studies in middle-class countries tend to be ad hoc, addressing short term policy concerns for staff officers with little long-term guidance. This suggests that the most useful form for PME data is a searchable "big bucket" rather than the curated spreadsheets and fields used in professions with agreed benchmarks. Many contributors could "dip into" a bucket, and solicit additional information through professional networks, as in NATO. This could replace existing, but inaccessible data about foreign curricula collected, but inadequately curated, by major powers like the US, UK, and France. Interstate competition and the war-fighting mission of professional military ideology is a barrier to sharing and comparing PME data. Nevertheless, the need to address new security challenges collaboratively drives the need for middle class countries to share, compare and publish to support that their military professionals' needs.

LOBO, Victor, CINAV, Portuguese Naval Academy, vlobo(a)novaims.unl.pt, "The struggle to keep defence academies." [inferred title] Many nations struggle to keep service academies because, although they are very important for an adequate preparation of future officers, they have few students, thus a reduced teaching staff, and the research contribution of these has a tendency to be di [truncated abstract]

LOUREIRO, Lieutenant-colonel Nuno Santos, Military University Institute, Portugal, loureiro.nars(a)ium.pt, "Reflective Portfolio: pedagogical innovation in competency-based learning." The complexity of contemporary conflict has revealed that the nature of military operations confirms the Clausewitz expectation of dealing with the unknown and the unpredictable, increasing the relevance of training as one of the

main Components to obtain the effectiveness and efficiency of the military force and the consequent success of the organization, giving the military the necessary skills to do so (Loureiro, & Santos, 2018). The Professional Military Education (PME) in the Portuguese Armed Forces (PAF) aims to prepare the military to deal and respond to concrete needs of their context. In particular, the education of officers happens through military higher education courses and cycles of studies, with special relevance in the military sciences, and aims at the preparation of highly qualified personnel, developing command, direction and leadership, staff and execution competencies in situations of risk and uncertainty of the PAF missions. To this end, a comprehensive and integrated training is developed, of scientific, technical and technological, behavioral, military, moral and civic nature, and an adequate physical and psychic preparation, indispensable to the exercise of functions in Military context. The training frameworks (qualification) take into account a functional analysis (in the perspective of competences), the working context, the organizational systems, the institutional relations and their future implementation. Many of the challenges facing today are related to the extent and diversity of knowledge, skills and attitudes required, and the necessary reflection on the most appropriate methodologies to promote and potentiate the learning of new generations of officers in a permanently changing environment (Santos, Loureiro, Lima, Silveira, & Grilo, 2019). The educational paradigm in Higher Education has changed dramatically in recent decades. The most traditional teaching, learning and evaluation methodologies have been replaced by more experiential alternatives, many of them based on online platforms, meeting the needs of an economic environment and highly technological knowledge (Brown, Brock, & Závodská, 2019). Military Higher education must accompany this evolution, not only to better prepare its officers, but also to ensure the attractiveness of the military career through the quality of the education it can offer. The new active methodologies of teaching, learning and evaluation, seek to develop critical processes, awaken creativity, stimulate reflection, in the end, solve concrete problems of real life, validating knowledge through its practical application. Among these innovative methodologies such as simulation, gamification, role-playing and problem-based learning (Subramani, & Iyappan, 2018), the portfolio emerges as a method of stimulating reflective thinking and potential pedagogical process, which helps students to become active people and critical researchers, open to dialogue and innovation (Toledo De Mendonça, Cotta, & Costa, 2015). Thus, it is considered that the reflective portfolio, the object of this study, may constitute an important active methodology in the Military Higher Education teaching, learning and evaluation process, offering, in addition, a space of contextualization and balancing between theory and practice, allowing students to become critical and reflective about their own actions and behaviors. Therefore, adapting the thought of Ehmke et al. (2018), a military capable of reflecting on his practice, transforming it according to situations, or being self-critical and attentive to its errors, by recognizing them, will be a more able and mission committed military. In this perspective, this study aims to use the reflective portfolio as a methodology for teaching, learning and evaluation, in the context of military career education, centered on skills. More than sharing reports of positive experiences in the teaching, learning and evaluation process in military higher education, increasingly pressured by the external evaluation of the quality of the education offered, the aim is to

contribute to the debate and the necessary deepening of innovative, effective and efficient methodologies, which in recent years have taken a strategic position in the development of military capacities. [extract from long abstract]

MITCHELL, Paul, Canadian Forces College, mitchell(a)cfc.dnd.ca, "Graduate Level PME: Meaning, Forms, Implications" This work reflects practitioner research at a command and staff college required to deliver "graduate level PME". For almost three decades, the Canadian Forces College has combined the professional staff college qualifications for mid-career and senior officers with an optional Masters of Defence Studies (MDS) graduate degree. In the process, CFC has demonstrated the characteristics of a learning institution as it has adapted to changing professional and academic accreditation demands, and new trends in military thought like the Design Thinking movement. At the heart of military learning at the graduate level is a shift from linear thinking to more dynamic interpretations, comfort with uncertainty and chaos, and critical awareness of self-referential reinforcement, building new ways of seeing. Using the German concept of Sachzwang (inherent necessity' or practical constraint') we consider a possible trajectory of doctrine and the kinds of knowing necessary to support it—from military operations and strategy towards international, multiagency and whole of humanity. Reflective practice and explicitly addressing methodology, ontology, and epistemology is essential for the intellectual growth of senior leaders. The paper concludes by explaining design epistemology at CFC.

REIFFENSTEIN, Anne, Canadian Forces College, areiffenstein(a)hotmail.com, "The Future of Professional Military Education: Post- Modern Military Pedagogy and Enhancing Critical Thinking" The global security environment in the 21st century is rapidly changing due to emerging technologies and an unpredictable security environment. The professional military education system is intended to prepare senior officers for their roles as future leaders in this ever-changing global security environment. As well, militaries are being asked to do new and unusual tasks for which there is no doctrine or historical example, so the leaders of the future will be more reliant on their thinking skills to be successful. The millennial generation has a different approach to learning than previous generations. The professional military education system needs to change to better support this new generation. A post-modern pedagogic approach coupled with a greater emphasis on critical thinking will increase the relevancy of the 21st century military education system.

WG10 Strategy

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BERZINS, Janis, Center for Security and Strategic Research, National Defense Academy of Latvia, janis.berzins01(a)mil.lv "The Theory and Practice of New Generation Warfare: the case of Ukraine and Syria." By employing well-known methods of warfare, but in innovative ways and with the help of new technologies, Russia's concept of operations in Crimea and eastern Ukraine took many in the West by surprise. Almost immediately, Western analysts embarked on a search for 40ilita-tions for this "new" approach, most of them within the West's own theoretical framework. These have included Gerasimov Doctrine, hybrid warfare and hybrid threat, non-linear warfare,

fourth generation warfare, and most recently "gray zone" conflict. Nevertheless, a vast volume of Russian theoretical debate about new ways of warfare has remained under-studied. This has resulted in misconceptions in characterization of Russian strategy, through molding it to fit Western theoretical constructs as opposed to those within which it was developed. Rather than helping assess the real options open to Russia, each of the terms mentioned above has tended to be unhelpful, as none reflects Russia's doctrine or assumptions about the nature of war in the 21st century. This paper's main aim is to describe the Russian way of sub-threshold warfare as defined by Russia itself. This was done by researching more than 30 years of Russian military literature, while case studies from Crimea and Eastern Ukraine were built from inter-views with Ukrainian military and security personnel, while information on the Syrian case was based on Russian sources. They must be considered as two different operations, with the ap-plication of different aspects of military art. An analysis of the Russian military literature when compared to the empirical evidence of Russian tactics in Ukraine and Syria shows that its strategy is multilayered and comprehensive. It is counterproductive to frame the Russian strategy within artificial frameworks established outside of the threat context, such as Hybrid Warfare. The Russians have their own framework which, although influenced by Western mili-tary doctrine, is the result of their own theoretical developments.

CALHAÇO, Major Nuno Miguel dos Santos Rosa, Portuguese Military University Institute, calhaco.nmsr(a)ium.pt, "Geopolitical and geostrategic analysis of Venezuela: an area of European strategic interest," The Venezuelan crisis has had, since the last years, a significant impact on the security and defense of the American continent, especially in countries located in to Caribbean Basin, with implications to South, Central and North America countries. This is the result of the influence of the United States of America (USA) in the Caribbean region, with the aim of maintaining its regional influence throughout all his continent. This need to broaden its influence in the region, in addition to a greater power status in economic matters, represents a permanent need to guarantee security and defense away from its mainland, a premise that converged to the American strategic isolationist doctrine for the region and for the world, as a military superpower. In this regard, we can see the effects of the loss of importance of USA at a global level, perspective that has been "envisioned" by the international community over the last decade, regarding his lower relevance in international matters, facing the appearance of countries with a high competitive capability, especially in economic and financial areas, focusing their hegemonic world stage, like China, from Xi Jiping, from India, from Narendra Modi, and to the resurgence of Russia, of Vladimir Putin. The need to ensure security and defense of USA territory is based on the assumption that the "worst" threat to its security and defense strategic interests, represents the existence of a land or naval threat "at his gates borders ", with a defiant and threatening capability for their national security. The maintenance of a buffer zone (across other countries of the American continent and maritime space), around its continental space, becomes a permanent goal for USA defense, in order to guarantee the necessary depth away from its continental territory, to guarantee their security. [extract from long abstract]

HACAGA, Maciej, War Studies University Poland, m.hacaga(a)akademia.mil.pl,
"Interdisciplinary study of energy security: challenging the liberal order." [inferred title] Energy resources have long been debated in connection with national grand strategies. However, the question how they contribute to long-term survival of the state and its people remains poorly explained. This is mainly because comprehensive analysis requires interdisciplinary approach, far broader than what is usually undertaken within the fields of "security studies" and "energy security". In the presentation I would like to show ways and methods of how I have attempted to address this problem over recent years and how this culminated in my PhD project. Firstly, I will briefly show why contribution of different, seemingly unconnected, fields is important. I learned that during my education and professional career that have traversed variety of organizations. Only the combination of all knowledge gathered during these activities allowed me to recognize full complexity of the matter. I will also show how I translated this scholarly problem into particular pieces of research and briefly present my previous works on the topic. Secondly, I will show how all these activities culminated in my PhD project. In my thesis I undertake comparative analysis of how the states that challenged (or challenge) Western liberal order – the Third Reich and modern China have attempted to escape dependence on foreign oil. In other words, I aim on showing why military, political, technological and diplomatic strategies adopted by oil-deprived rising powers (have) failed and what does this tell us about the possibility of the outbreak of world war in the 21st century. To deliver exhaustive explanation I combine security studies, international relations, military history, economic history, energy security, history of technology and geopolitics in my inquiry. Hence, through longitudinal multifactor analysis, my thesis aims on providing lessons from the past for the current and future global security environment.

MILEVSKI, Lukas, Leiden University, lukasmilevski(a)gmail.com, "De Quoi S'Agit-Il? What is Strategic Studies All About?" To provide the necessary conceptual or methodological coherence as its basis, every field of study or practice needs a collective sense of what that field is all about. For strategic studies as an academic field, task has been a historically difficult task. Academic strategic studies was born in a context when the answer to that basic question—Bernard Brodie's favorite question about strategy, de quoi s'agit-il, what is it all about—was facing major and perhaps revolutionary revision as a result of the development of nuclear weapons. Academic strategic studies was born not just during but as an existential revision in how to think about, study, and practice strategy. This existential revision led to new methodological problems for all three – thinking, studying, practicing. Early on Brodie, borrowing from economics, advocated a scientific approach to strategy as he believed that the military as an institution was both incapable and uninterested in studying strategy scientifically. A few years later, he would further proclaim that "[t]he old concepts of strategy, including those of Douhet and of World War II, have come to a dead end. What we now must initiate is the comprehensive pursuit of the new ideas and procedures necessary to carry us through the next two or three dangerous decades." A disciplinary focus on strategy-in-war is not too narrow to be sustainable; because part of the purpose of a sense of identity is to determine relevant relationships with other fields. Much as cities have their own hinterlands from which they draw required resources to create new products, so too can

strategic studies have an interdisciplinary hinterland from which it may import ideas, insight, and knowledge for inclusion and adaptation within a context of strategy and war. Clausewitz borrowed metaphors from physics and theology, his predecessors relied on mathematics and geometry, and academic strategic studies from the beginning has borrowed from many other fields of study. The research product of a re-focused strategic studies should be a system of thought (but not a static theory) which can 1) accommodate new information and insight; 2) convincingly explain what is constant across strategic experience and how and why it matters; 3) explain change across strategic experience and how and why it matters; 4) inform strategy in practice; and 5) be clearly explained to other fields working on related questions. [extract from long abstract]

RASKA, Michael, S. Rajaratnam School of International Studies, Singapore, ismraska(a)ntu.edu.sg "Strategic Competition, Emerging Technologies, and Future of Conflict in East Asia" One of the most pressing issues in contemporary international relations is the expectation of a new era of intensifying strategic competition, characterized by the confluence of political, economic, and military-technological competitions in the context of major shifts in the global security environment. At the forefront of this growing strategic rivalry is the contest for future supremacy over global security and economic institutional grids between the world's major military powers – the United States, China, and Russia. Strategic competitions between great powers are not new; they have been deeply rooted in history – from the Athenian and Spartan grand strategies during the Peloponnesian War in the third century BCE, to the bipolar divide between the Soviet Union and the United States in the Cold War during the second half of the twentieth century. The character of the emerging strategic competition, however, differs from analogies of previous strategic competitions, most recently in the period of the Cold War, when the United States focused solely on maximizing the containment of the Soviet Union across all dimensions – political, economic, ideological, and military, while the Soviet Union countered with comprehensive efforts to shift the overall "correlation of forces" to favor Moscow. Today, the United States faces an array of current and long-term security challenges across different geographical areas, while the Sino-U.S. relationship is much more complex in terms of integrating varying drivers of cooperation, competition, and conflict simultaneously. In other words, the global patterns of the strategic competition in the 21st century are more complex, unpredictable, and diverse, reflecting multiple competitions under different or overlapping sets of rules. Long-term economic interdependencies co-exist with core strategic challenges, while ideological and institutional contests focus on the making and interpretation of rules and norms.

SOBECKI, Nicholas, Department of Political Science, University of Alabama, nksobecki(a)crimson.ua.edu, "Effects of process on development of strategies," [inferred title] Professional military education (PME) institutions in the U.S. as well as the literature depict the development process of strategies as having a clearly defined structure. It begins with abstract information that is systematically coalesced into specific information for the creation of concrete plans. The farther along the conveyer belt the information goes the deeper into the bureaucracy it travels. These normative models fail to question, what effects do variations in the development

process have? For example, what effects occur when the National Security Strategy is developed prior to, concurrently with, or out-of-phase with the strategies it is supposed to be preceding such as the Department of Defense's National Defense Strategy and the Department of State and USAID's Joint Strategic Plan? This paper seeks to answer these questions through the use of semi-structured interviews with current and former strategists and policy planners in the U.S. bureaucracy and archival research. (Nicholas K. Sobecki is a Ph.D. candidate in the University of Alabama's Department of Political Science. His research focuses on the strategic development and implementation processes at the grand, agency, and field levels. He is interested in understanding how the processes work and why as well as the role of strategists and policy planners in them.)

WILCZEWSKA, Alicja, War Studies University, wilczurska(a)gmail.com, "The Propaganda Is Dead, Long Live the Propaganda." Opposite to an intuitive assumption that propaganda is now in its full blossom, in the 21 century propaganda tools as we know it i.e. employed in political programs, broadcasting or commercials seems to be no longer an effective communication tool. Indeed, propaganda has become a subject of public debates: academic as well as in media. Its most memorable symbols – be it propaganda posters, brochures, pictures - have been recycled by art to get to popular culture or be reproduced as elements of interior design or humorous gifts. However, it may seem that propaganda – having touched and abused minds and souls of masses in the 20th century - at the beginning of 21st century lost its influential power. Whatever is called propaganda, has no propaganda impact any longer – it is recognized, defined, labelled. Propaganda is associated to channels used by totalitarian regimes of the 20th century. The new generations learnt to figure out the tricks – those old tricks, though. Yet, the new methods are being developed to appeal to audience subconscious. Propaganda went underground – where it is hard to evaluate who does what in what channel and with what intended effects. Moreover, propaganda seems to be no longer what it used to, that is – actions used to convince mass audience or to boost their attitude. It appears to be a mixture where the amount of persuasion is decreasing whilst element of manipulation is growing. The invisible arrangements guide people to the decision desired by the communication source instead of persuading us what to do. This paper focuses on the issues of definition of the 21 century propaganda in order to answer the question about it's the long-term and global impact. What is the life cycle of propaganda techniques? What does life after death look like for propaganda techniques – and its audience?

ZAWADZKI, Tomasz, War Studies University, Poland, t.zawadzki(a)akademia.mil.pl, "feedback loops in a dynamic model of information warfare." [inferred title] Hybrid war is a military strategy concept which is not focused on using conventional means of combat dedicated to physical elimination of an opponent. It combines kinetic operations, irregular warfare and cyberwarfare. The last one, due to rapid advances in technology has been extensively explored in recent decades, which, in turn, led to the emergence of cybersecurity forces and cybersecurity strategies. In recent years, along with the growing popularity of the social media, smart phones and wireless access to the Internet, cyberwarfare took on a different, and even more frightening, character. The modern techniques of cyberattacks focus on long term, hidden

activities and are directly aimed against human weaknesses and not against device or software vulnerabilities. Such activities are strictly connected with so called information wars, which are an integral part of hybrid wars. Due to the above hybrid wars are characterized by strong nonlinearities which are harder to simulate than in classical types of conflict. In this paper the authors try to present a simulation model which will facilitate a better understanding of processes identified in the hybrid war, especially the process connected with the dissemination of fake information. In terms of methodology, a system dynamics approach has been used, with Lanchester combat models as a starting point. As information dissemination is similar to the spread of an epidemics, the combat model has been combined with the SIR (susceptible-infected-recovered) model of epidemic spread. In case of information, susceptible means people susceptible to fake information, e.g. due to low education level, infected refers to people who have believed in such fakes, and recovered to those one who have recognized the information was fake. Using a dynamic model, the authors try to identify positive and negative feedback loops which are responsible for nonlinearities and create model behavior. Created model is transformed into mathematical differential-algebraic equations system and simulated with the use of dedicated tool. Simulation results obtained, allow the authors to create different scenarios of a hybrid war depending on many factors such as society's education level, society's access to the public and private media, the adversary's access to the social media, or the adversary's economy.