



NATO Defense College



Vox Collegii

The voice of the College

The Clash of Civilizations?
Russia versus West

Information Technology Warfare
in the 21st Century

Volume XIII, July 2016



Understanding
Montenegro's Maritime Strategy





Vox Collegii

The voice of the College

CONTENTS

Editorial	2
The Commandant's Corner	3
A Deep Insight: The clash of civilizations? Russia vs. the West, or Conservative vs. Liberal political paradigms <i>by Sanja Ivic</i>	4
Resilient for how long? Information technology warfare in the 21st century: The Alliance's invisible threat <i>by Nadia El Fertasi and Diana De Vivo</i>	8
Charting a course to NATO membership: Understanding Montenegro's maritime strategy <i>by Brooke Smith-Windsor</i>	16
Life at the College: 50 years in Rome - 65 years serving NATO	20
Highlights:	
Our Courses	21
Our Guests	25
Our Publications	29

Editor-in-Chief:
LtCol Alberto Alletto (ITA A)

Editor:
Federica Metus (ITA C)

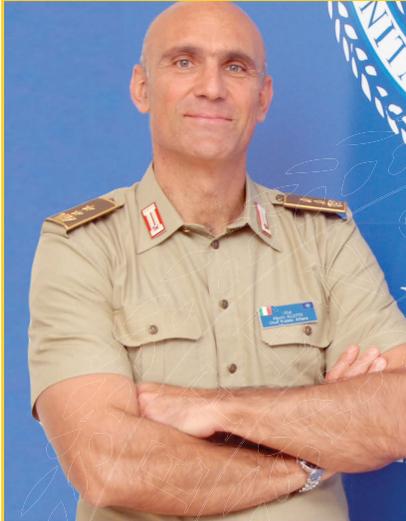
Assistant Editors:

Ali Eren Guven (TUR C)
Giulia Ferrandu (ITA C)
Francisco J. Marin-Barrena (ESP C)

Proof-reading:
Caroline Curta (FRA C)
Peter G. Mead (GBR C)

Photography:
NATO - NDC Reproductions Section

Graphic Design & Printing:
Grafich Communication S.r.l. (Fondi -LT-)



This year marks a significant milestone for the NATO Defense College: 2016 is a year of celebration commemorating the 50th anniversary of the NDC's relocation to Rome and the 65th since its foundation.

This year will also mark the end of my tenure here at the NDC: being part of this family has not only been an honour but also a real privilege and, in spite of the many challenges, I will always treasure the time spent and the experience gained at the NATO Defense College. So, in view of my reassignment, this editorial will be my last. After four years at the NDC I can truly say that this has been an "amazing adventure" which has helped me to grow professionally, thanks also to my team of highly competent colleagues.

The celebrations planned for the anniversary of the College have already begun with the visit of the President of the Republic of Poland Andrzej Duda. The visit, on 17th May, marked the first step towards a series of important events that will take place in October, when the College hosts the NATO Secretary General and

Heads of State. The NDC's presence in Rome has always been of paramount importance to Italy; as the Alliance's prime educational institution, the NATO Defense College plays a key role in preparing high-level military officers and civilians to take up future positions of authority to safeguard the freedom and security of member states, and to achieve this the College continuously readjusts its curricula in keeping with current global developments. In spite of the sixty-five years that have passed since November 1951, the NDC continues to innovate and to adjust to the times. This is the reason for which we chose to entitle the anniversary event "Listening for the wind of change, preparing the future". The College has always been granted a special responsibility by NATO: it is a faithful interpreter of the Alliance's resolve, contributing to the cohesion between member states and encouraging dialogue with others.

Moving on to the magazine, the articles in this issue cover a number of interesting topics. One of them deals with relations between Russia and Western countries, exploring major divergences between the Russian political heritage and the prevailing liberal paradigm in the West. According to the article, the only solution to the conflict between Russia and the West is a "fusion of horizons" – in other words, cross-cultural dialogue is necessary in order to achieve a successful and peaceful relationship.

Another interesting topic covered in this edition of Vox Collegii is Montenegro's maritime strategy. After starting accession negotiations in 2010, NATO's formal invitation to the tiny mountainous state was issued in 2015, while the Accession Protocol for Montenegro was signed by Foreign Ministers on 19th May this year, thus paving the way towards full membership. As NATO member states are both security consumers and security providers, Montenegro has been requested to define its

maritime strategy.

The third article discusses information technology warfare in the 21st century. This article sheds light on the importance of IT for NATO, for the monitoring and gathering of information, enabling the Organization to remain resilient in a continuously changing security landscape.

**Lieutenant Colonel
Alberto Alletto**

Italian Army, Head Public Affairs Office



This year the NATO Defense College will be celebrating a major event in its history. Next October, the annual Anciens' Conference and Seminar will coincide with celebrations to mark the sixty-fifth anniversary of the NDC's foundation and the fiftieth anniversary of its relocation from Paris to Rome. Celebrations started early, with a visit by the President of the Republic of Poland Andrzej Duda on 17th May.

As host nation, Italy has always been a great supporter of our work and the College's excellent facilities bear testimony to Italy's enduring efforts.

The College continues to fulfil its outreach mission with vision and energy, through a dynamic programme of initiatives and events. Our goal remains the same as 65 years ago: to build relationships and strengthen partnerships between allied nations. NATO's Strategic Concept identifies "cooperative security" as one of NATO's three essential core tasks, alongside crisis management and collective defence. It states that the promotion of Euro-Atlantic security is best assured through a wide network of partnerships with

countries and organizations around the globe. These partnerships make a concrete and valued contribution to the success of NATO's '360°' approach in addressing threats to international peace and security.

An important topic, which I have supported keenly throughout my mandate as Commandant, is the accreditation of the NDC Senior Course with a view to a subsequent Master's degree. The Military Committee commissioned a review of the NDC which reported back in 2014, suggesting ways of enhancing the experience of the Senior Course. One of the recommendations was to facilitate study towards a Master's degree and offer this opportunity to Course Members, without adversely impacting our current curriculum or their commitment to the Senior Course. An internal study recognized that full accreditation of the NDC was not appropriate on the basis of cost, curriculum interference and impact on the consensual ethos of the College. However, a proposal has been found to facilitate ambitious Course Members who want to study for a Master's, which is an exciting prospect. We have been working with a number of universities and Leicester University in the UK has provided an opening to start the process, which we are hoping to have ready in time for Senior Course 129 in September of this year. This should enable a Course Member to enroll on one of seven Master's degree courses, coinciding with the start of the Senior Course in September and March. The Master's degree will be a flexible programme that could be completed over a period of two to four years. Successful completion of the Senior Course will be considered equivalent to a UK Master's module in 'Strategy in the Modern World'.

Another priority I have set during my time at the NDC has been to hold one major event each year. In 2015, we hosted a conference on "NATO and the New Ways of Warfare: Defeating Hybrid Threats"; on 17th May this

year, as mentioned above, we welcomed the President of the Republic of Poland Andrzej Duda. The NATO Defense College intends to organize other such events in the future, so stay tuned to find out what will be on the schedule for next year.

**Major General
Janusz Bojarski**

Polish Air Force, NDC Commandant



The clash of civilizations? Russia vs. the West, or conservative vs. liberal political paradigms

Sanja Ivic



Sanja Ivic is Associate Research Fellow at the Institute of International Relations, Prague, Czech Republic, and a Research Fellow at the Institute for European Studies, Serbia. She completed her Postdoctoral research at the University of Paris 10, France. She is a member of Editorial Boards of three peer-reviewed international journals: International Law Research (Canada); American International Journal of Contemporary Research (USA); and Journal of Law and Conflict Resolution (Africa). She also cooperates with various international scientific institutes and teams. She was a member of the Steering Group of the project "Pluralism, Inclusion, Citizenship" (UK) and she is currently a Board Member of the International Society for Philosophers. Her publications include books and articles on various subjects in the fields of international relations, philosophy and European studies. Her book European Identity and Citizenship: Between Modernity and Postmodernity was published by Palgrave Macmillan, UK in 2016.

Comprehending the wider context of Russia's foreign policy and its cultural, religious and philosophical background is significant, as it enables political dialogue and prevents the establishment of false, potentially dangerous approaches and contexts in which American and European leaders make their decisions. The realm of international relations is dynamic, not static, and should not be based on fixed identities and assumptions.

Russia is not the Soviet Union and it is necessary to perceive it from the post-socialist perspective in order to understand Russian geopolitical strategy and comprehend what lies behind Russia's annexation of Crimea and its confrontational policies towards Ukraine. The Ukraine crisis was a predictable consequence of Western policies in Russia's neighbourhood and consistent with the essentially conservative Russian political and philosophical heritage, not just the result of imperialistically motivated opportunism. In light of this political, cultural and philosophical background, Russia's foreign policy becomes easier to predict and continuity may be identified.

Russian and Western paradigms reflect two different worlds, based on the differences between a conservative and a liberal political heritage, consistent with Samuel Huntington's idea of a "clash of civilizations". According to Huntington (1993: 22):

"The fundamental source of conflict in this new world will not be primarily ideological or primarily economic. The great divisions among humankind and the dominating source of conflict will be cultural. Nation states will remain the most powerful actors in world affairs, but the principal conflicts of global politics will occur between nations and groups of different civilizations. The clash of civilizations will dominate global politics. The fault lines between civilizations will be the battle lines of the future."

The realm of politics is also a realm of interpretation and that is why the consequences of incommensurable, conflicting paradigms can be dangerous, leading to various types of political crisis.

The Russia-West crisis is based on two different visions of post-Soviet Russia. According to the Western perspective, Russia should adopt a liberal political paradigm and Western political values. NATO's identity as a global actor is built on liberal values, which include democracy, rule of law, individual liberty and human rights. However, the Russian perspective rejects Western-centric paradigms and the idea of moral and political universalism, while it gives priority to a conservative heritage, the concept of Westphalian sovereignty and Orthodox Christian values.



Russia's perception of the West is shaped by metanarratives, as is the Western perception of Russia. Metanarratives (or grand narratives) describe political, social, historical or cultural output based on a coherent, monolithic, one-dimensional perspective, which becomes a dominant, widely accepted point of view in public discourse, "political correct" versions of history or certain political and social actions. Postmodernist authors question all grand narratives and show how they are used to justify various power structures. Russia's anti-Western grand narrative is based on the following assumptions: NATO's enlargement eastward as a strategy to weaken Russia; American paternalism; rejection of Western-centric paradigms and values, as well as the liberal hegemonic order; Russia as the guardian of sovereignty and traditional values, and so forth. On the other hand, Western metanarratives on Russia include the following assumptions: the need for Russia to embrace Western values and a liberal paradigm; Putin's imperialism and anti-Western politics;

Russia's illiberal domestic and aggressive foreign politics, aiming to bring Russia back to the power and influence that the Soviet Union had during the Cold War. Both Russian anti-Westernism and Western Russophobia are one-sided and based on approaches which exclude and demonize the "Other". In order to enable a political dialogue, it is necessary to revisit the discourses and grand narratives which provide a rationale for the claimed incompatibility between Russia and the West.

Contemporary Russia's foreign policy should be comprehended in light of the conservative heritage and philosophical and political perspectives of Nikolai Berdyaev, Vladimir Solovyov and Ivan Ilyin. Those three thinkers are as important for understanding contemporary Russia as Thomas Paine, Thomas Jefferson and Benjamin Franklin are for understanding American principles of politics and democracy. Knowledge of Russia's conservative intellectual heritage is necessary to



<https://www.flickr.com/photos/nato/8674568993/in/photolist-edxr9n-edD6Jj-edD6G5-edxr9v-edwrEe-edwrtX-edC6PQ-edwrkc-9Zp2jT-kWaqr5-9Zs3Jb-jWMrhu-edwrze-edC6Jw-edC6MJ-edC6WS-edwrst-edwrAV-edwrfK-edC76d-edwrsc-edwrCK-edC6Sh-edC6PS-edwrqK-edwrqn-edwrHe-edC6KY-edwrvT-qNv18N-aSHYjP-kWaqU9-kW8SKx-kW9vuc-kWarS1-kWarDA-kW8S1r-kW8QWc-kWaraj-kW9vGg-kW9tZP-kW9tL2-kW9t4k> Press conference by the Minister of Foreign Affairs of Russia

Press conference by the Minister of Foreign Affairs of Russia Sergey Lavrov

continued ...



[https://en.wikipedia.org/wiki/Russian_Armed_Forces#/media/File:Moscow_Victory_Day_Parade_2013-05-09_\(41d462db420812a9c260\).jpg](https://en.wikipedia.org/wiki/Russian_Armed_Forces#/media/File:Moscow_Victory_Day_Parade_2013-05-09_(41d462db420812a9c260).jpg)
Vladimir Putin and Defence Minister Sergey Shoygu, Victory Day Parade in Moscow, 9 May 2013.

place contemporary Russian government in an appropriate intellectual and political perspective, perceive consistency in Russia's foreign politics, and predict its future actions. The President of Russia, Vladimir Putin, is a representative of the Russian tradition of "liberal-conservatism", which stems from native Russian schools of thought, different from the ideals represented by the Western Enlightenment. According to Berdyaev (1915a), Russian national self-consciousness was born "within the disputes of Slavophilism and Westernism", which represent two fundamentally different perspectives.

Berdyaev, Solovyov and Ilyin advocate Russia's special and unique purpose and place in the world, Orthodox Christian values, and autocracy. However, the sense given to the concept of autocracy by these Russian thinkers is different from the more general understanding of this term. It should be perceived as a religious and philosophical concept – "a manifestation of non-state spirit" (Berdyaev 1915b). The writings of these philosophers contain liberal elements, although they do not perceive Western democracy as a desirable political model.

Based on this conservative heritage, Russia's interpretation of international law differs from Western approaches. As stated by Mälksoo (2015: 141):

"The balance point between the principles of state sovereignty and human rights has altogether been found to be in a different place in Russia and the West. Western scholars usually emphasize human rights and the individual in the context of international law while in terms of the hierarchy of principles Russians continue to give priority to the principle of state sovereignty. On the level of predominant ideas in scholarship, many international law scholars in EU countries have become adherents of the political philosophy that emphasizes human rights and makes a distinction between liberal and illiberal states whereas Russia has intellectually remained a sovereigns stronghold, a conservative and illiberal force in international law."



This clash of interpretations is, actually, an echo of an old philosophical question: Is it possible to reach consensus on human rights and perception of international law?

Political philosopher John Rawls's (1985) idea of reasonable pluralism points to a different understanding of the concept of "public political culture", albeit based on common principles and ideas that may be differently interpreted and justified from the points of view of different cultures and policies. Warnke (1993: 42) sums this argument up as follows:

"Indeed, even if we possess 'a shared fund of implicitly recognized basic ideas and principles', we may nonetheless give different degrees of emphasis to different aspects of this fund, understand the relation between these aspects in different ways, stress different dimensions internal to them or understand the fund itself within different contexts of interpretation. Where these circumstances hold we may come to understand the meaning of the fund differently as well."

Rawls (1971) coined the term "overlapping consensus", which refers to the possibility of representatives of different social groups/policies achieving agreement on basic norms/principles of justice, although they would not agree on the interpretation of these norms, which they would construe in accordance with their comprehensive doctrines (metaphysical, religious, philosophical, political and other paradigms).

John Rawls, Charles Taylor and many other liberal thinkers argue that a distinction should be made between human rights norms on the one hand, and their interpretation and justification on the other hand. The main discrepancies in human rights, as perceived from the perspectives of different cultures, are not based on legal norms, but on different interpretations of those norms (Taylor 1994). Taylor (op. cit.: 67) argues that in order to reconcile those differences, discourse of human rights in Western and other cultures should be examined in order to achieve a consensus regarding some aspects of rights, which would lead to a "fusion of horizons":

"Because, for a sufficiently different culture, the very understanding of what it is to be of worth will be strange and unfamiliar to us [...]. What has to happen is what Gadamer has called a 'fusion of horizons'. We learn to move in a broader horizon, within which what we have formerly taken for granted as the background to valuation

can be situated as one possibility alongside the different background of the formerly unfamiliar culture. The 'fusion of horizons' operates through our developing new vocabularies of comparison, by means of which we can articulate these contrasts."

In order to resolve the current conflict between the West and Russia (which is, actually, based on two different metanarratives, liberal and conservative), it is precisely a fusion of horizons that is needed. The concept, originally coined by Hans-Georg Gadamer (1975), stems from the premise that individuals always come from different cultural, historical, educational, linguistic, religious and philosophical backgrounds which influence their way of thinking, this being culturally, historically and philosophically embedded. The fusion of horizons is a dialectical concept which may be defined as a cross-cultural dialogue that transforms human understanding (Gadamer 1975). This cross-cultural dialogue, one of the fundamental tasks of international policy, is necessary in order to achieve successful political dialogue and cooperation between Russia and the West (as representatives of two different political paradigms and perceptions of global order). However, any society which is preoccupied with the protection of one particular grand narrative will not be open to transformation based on such a dialogue.



Resilient for how long? Information Technology Warfare in the 21st century: The Alliance's invisible threat

Nadja El Fertasi

Diana De Vivo



Nadja El Fertasi holds the position of Stakeholder Engagement Senior Executive Coordinator in the NATO Communications & Information Agency. She is responsible for developing and maintaining close engagement with key stakeholders, and ensuring the General Manager's position on key issues is accurately presented and stakeholders' positions clearly understood. Nadja holds a Master's degree in International Relations from the University of Cambridge and is an Alumna of the NATO-wide Executive Development Programme. She has a keen interest in international relations, security studies and politics. She is fluent in Dutch, English, French and Arabic, and is proficient in Italian and German.



Diana De Vivo is currently working in the Executive Management team of the NATO Communications & Information Agency, and is responsible for supporting the General Manager and the Chief of Staff with internal governance and decision-making. Diana holds a Master's degree in International Relations and Politics and has worked at the European Commission, the European External Action Service, the Italian delegation to NATO, and JFC Naples. She is fluent in Italian, English and French, and also proficient in Spanish.

1. Introduction

Today NATO faces the rise of new technologies, national powers, and non-state actors: sophisticated, asymmetric and unconventional threats to the Alliance's security. NATO's Information Technology (IT) transformation in the 21st century is paramount; protecting NATO's nervous system is critical, and failure is not an option. To ensure that NATO's IT in all its facets (cyber, network and point-to-point) continues to be resilient against 21st century information warfare threats, nations should do more to back up their political claims with tangible financial commitments.

Imagine that a long-range ballistic missile is launched and targeting NATO's population, territory or forces. NATO Commanders may only have six minutes to make the strategic decision to engage and intercept the incoming missile. Their reliance on the operational information provided through IT networks is total, ensuring the right information, at the right time, in the right place. The loss of a Common Operating Picture (COP) would likely be a conduit for disaster. NATO's IT networks constitute an integral part of the Alliance's resilience.

Sounds dramatic? Well let's bring it closer to everyday reality. NATO has always maintained a technical advantage over its potential adversaries. Through its Alliance Ground Surveillance System (AGS), consisting of five Global Hawk Unmanned Vehicle (UAVs) and Ground Control Stations, the Alliance will have a 21st century system that will support the



U.S. Army photo by Sgt. Roland Hale, 1st Inf. Div. Public Affairs
fc. Brian Juno, 4th Infantry Brigade Combat Team, 1st Infantry Division, uses computer software at Fort Riley's Battle Command Training Center

Commander's comprehensive real-time and near real-time situational awareness at strategic distance and within hours, if not minutes, of a crisis arising. AGS will gather massive amounts of data to enable situational awareness of land and maritime environments; but what use are a Global Hawk and its ground stations, without the IT infrastructure through which its data is communicated for possible use by decision-makers? NATO's IT enables surveillance and intelligence gathering, serving as NATO's eyes in the sky in light of increased airspace security breaches on its borders. Ensuring continuous situational awareness in specific areas of interest, during critical periods of heightened tension, is therefore of the utmost importance. Without the current IT architecture to support operational capability, both the Alliance and nations risk making uninformed decisions with incomplete and fragmentary data, with results that could lead to potentially serious unintended consequences. Decision-makers must acknowledge that the resilience of NATO's IT infrastructure allows the Alliance to bring to bear those military capabilities, like AGS, which give it a

strategic technical advantage over potential adversaries.

NATO knows from experience that a nation can be targeted and suffer major disruptions to its infrastructure at the click of a mouse. A three-week sequence of massive cyber-attacks on Estonia in 2007 is just one example of the alarming, unprecedented scale of cyber warfare. It is appreciating that Cyber resilience is not static and has invested in every sense to ensure it is increasingly cyber-resilient to counter a major cyber-attack that might impact the conduct of an essential NATO operation or related decision. What many do not yet appreciate is that cyber defence is more than countering electronic attacks: a network approach to resilience is required. An enterprise that includes NATO, its nations, perhaps some partners, industry and an acceptance that what has been done in the past to maintain the Alliance's IT infrastructure and defences is not what will work in the future.

This article highlights the importance of IT as NATO's nervous

continued ...



US Army photo by D. Myles Cullen
Army Staff Sgt. Jenkins briefs Army Chief of Staff, Gen. George W. Casey, Jr., about technologies being incorporated into the current war against terrorism.

system, allowing the Alliance to remain resilient as network warfare becomes increasingly prevalent in the continuously evolving volatile security landscape. It argues that, in order to ensure NATO maintains its edge in military technology and keeps up with the pace of innovation, an effective reallocation of resources, agile acquisition reform, reuse of existing NATO solutions, early engagement with industry, use of available commercial solutions and increased collaboration with partners should all be an integral part of NATO's approach.

NATO has embarked on an adaptation to ensure balance within its three core tasks (collective defence, crisis management and cooperative security). It will be a strategic challenge to address today's crises while also planning and preparing for tomorrow's threats and challenges. Resilient, modern IT infrastructure will be a necessary component for NATO to successfully tackle this challenge and underpin each of the three pillars of its adaptation: institutional, military and political.

2. Institutional Adaptation

The aim of NATO's institutional adaptation is to improve internal processes and procedures to better respond to a volatile security environment. Policy decision-makers do not fully appreciate the role of IT as a critical enabler supporting the Alliance's political-military objectives. One of the greatest

challenges ahead in 21st century information warfare is the pace of NATO's technological adaptation. Global banks update their entire IT infrastructure rapidly and often; some quarterly. Their logic is a simple response to a non-static threat and is based on reality; they cannot afford to have compromised networks. In this respect, NATO has to act very much like a bank: it cannot afford to be compromised. Banks use technology incubators, in collaboration with the cyber industry, to increase mutual understanding in real time and to speed up and de-risk acquisition. Endorsed by the Alliance at its Wales Summit, the NATO Industry Cyber Partnership (NICP) has paved the way for collaboration with the private sector in addressing cyber threats. Through piloted incubators, NATO, industry and academia have worked together on defining challenges and investigating innovative solutions in the areas of data fusion, cyber defence situational awareness and mobile security. With political will, a pilot scheme could become a permanent process.

The institution of NATO, the various Headquarters and their staffs, enable decision making – enable the brain of NATO to decide on a course of action so the organs, muscle, bones and sinews of NATO can act. IT provides the nervous system. Robust and modern IT infrastructure provides the pathways for optimal decisions and actions, based on accurate, managed, prompt and properly ordered information. Through modernized IT, NATO has access to new levels of intelligence gathering, early warning, rapid decision-making and solutions to address the



threats and challenges emanating from a changed security landscape – a security landscape where both state and non-state actors have unparalleled levels of access to global cyber space.

We have seen first-hand Russia's hybrid warfare tactics, its effective propaganda at home and in neighbouring countries, deployment of Anti-Access/Area-Denial (A2/AD) capabilities stretching from Kaliningrad to the Black Sea, and a shift in its nuclear policy as part of a continuum of capabilities. The risks of miscalculation have risen. The means to minimize that miscalculation depend to a large extent on IT. Their effectiveness must drive the priority and need for NATO to develop, acquire and implement the right IT capabilities if it wants to mitigate that risk.

"NATO is well aware of the technological advancements on the part of our potential state-based adversaries and also non-state actors, in the areas of both traditional military and hybrid capabilities. NATO as an organization and individual Allies need to be ever committed to maintaining our capability edge, including through continuous innovation, support to research and development and state-of-the-art technology, to deliver on the Alliance's three core tasks."

General Petr Pavel

NATO acquires IT today through a waterfall model,¹ no longer suitable for developing and acquiring IT capabilities needed to maintain a credible deterrence and readiness posture based on resilience. IT programs have a much shorter and more fluid lifespan. If NATO wants to maintain its technological advantage thanks to its military capabilities, it needs to ensure its IT is robust and resilient enough to enable them. It will not do so if it continues to rely on traditional NATO acquisition models that are no longer suitable for capability development in the current security landscape. As threats develop apace, NATO must ensure its nervous systems is fit for purpose, so that it can respond appropriately and bring to bear its technical advantage against those threats.

The United States recognizes the importance of maintaining its edge in military technology and has launched a Defence Innovation Initiative known as its "third offset strategy" (3OS). The 3OS is a set of policies designed to harness new technological innovations and operational concepts so that the

US can offset growing technological parity with its adversaries, thus maintaining its ability to project conventional power. Washington is keen to include its Allies in NATO as part of the 3OS:

"All of us [NATO member states] together need to decide this innovation effort is a priority or not; that is, a deliberate effort. And we just can't float along the resource levels that the Alliance is giving to defense right now."

Deputy Secretary of Defense Robert Work²

The 3OS is a game-changing innovation and technology challenge, to ensure that the USA and Allies are equipped to stay ahead of their adversaries in acquiring and developing the latest solutions. This will bring increased levels of vulnerability to NATO's network, which is why IT resilience must stay at the forefront of NATO's priorities.

3. Military Adaptation

Military adaptation to the new international security landscape aims at providing the Alliance with the right strategic capabilities, the right set of forces – trained and interoperable – and an effective capability and defence planning, in a challenging international security environment. The ability to communicate and understand each other in a coalition where different standards are used is critical for any successful mission. Yet, in early May 2016, Dutch F-16 lacked satellite communication equipment for operational flights over Syria. The cost of non-interoperable radios is higher than ensuring interoperable standards between coalition forces in a mission environment.

On today's battlefield, the network links military assets in a manner never seen before, and now crucial to modern warfare. The effective conduct of NATO operations could be compromised if not sustained by a robust, agile and secure NATO IT infrastructure to meet the challenges of the evolving security environment. NATO's modern military operations – and extensively military capabilities – are becoming extensively net-centric. The network must be as good as, if not better than, the capabilities it supports if they are to be operationally effective and deliver a combined tactical, operational or strategic effect to win on a modern battlefield.

¹ A waterfall model is a process model for capability development where each phase must be complete before the next phase can begin. It is most effective for small projects with little if any uncertainty.

² Daniel Fiott (2016) Europe and the Pentagon's Third Offset Strategy. *The RUSI Journal*, 161:1, 26-31, DOI:10.1080/03071847.2016.1152118

continued ...



•Georgia National Guard photo by Master Sgt. Gerard Brown
VAZIANI TRAINING AREA, Tbilisi, Georgia

Although net-centric operations pave the way for warfare in the 21st century, providing a new set of weapons, this also exposes states and international Organizations to emerging vulnerabilities that require a collective response:

"Innovation and rapid technological development have changed the way we go to war. Our forces are linked together on data-rich networks that allow global command and control. These networks make Alliance forces more capable, but networks are vulnerable to attack, exploitation, and interruption. For that reason, the Alliance must recognize its strength (networks) could become its vulnerability. So, we must build an effective and enduring shield for NATO's very nerve center, its IT domain."

Deputy Chairman NATO Military Committee,
LtGen Mark O. Schissler

The Alliance must take a holistic view of its IT infrastructure in connection with its kinetic systems. They cannot be considered as disconnected elements, but as part of a whole whose weaknesses must be addressed holistically to ensure its viability.

The implementation of the assurance measures of the Readiness Action Plan (RAP) has increased the number of exercises on the Eastern Flank of the Alliance. Every single NATO exercise has confirmed that the real challenge for the Alliance is enabling and reinforcing Command, Control, Consultation, Computer, Intelligence, Surveillance, Reconnaissance (C4ISR) interoperability between national units and the NATO Force Structure at the tactical level. How effective can NATO's Deterrence and Defence posture be if its own enablers – the NATO Response Force, Joint Intelligence, Surveillance and Reconnaissance (JISR), Command and Control Capabilities, the Combat Service Support component, the NATO Command Structure, strategic awareness, hybrid and cyber warfare and strategic communications (StratCom) – are not able to operate as an integrated whole? IT and investing in IT, in a rapidly changing security environment, is paramount to ensure NATO's network remains resilient so that it can operate as an integrated whole.

Forces need to be able to interact, connect, communicate, and exchange data and services through interoperable equipment. This is most evident in the challenge NATO will face when it tries



to integrate, at the tactical level, its Spearhead Forces, follow-on forces and Host Nation forces. This will involve multinational brigades and sub-units from the militaries of many nations who, in many cases, are each using different radio standards, encryption systems, and even languages. NATO, the institution, must tackle this challenge head-on so that NATO nations and their industries can close this interoperability gap.

Afghanistan provided an unprecedented interoperability laboratory that allowed NATO Allies and partners to work together in an operational environment. Today, Federated Mission Networking (FMN) leverages the success achieved in ISAF and represents a key contribution to the Connected Forces Initiative (CFI), helping Allied and partner forces to better communicate, train and operate together, enhancing interoperability and information sharing. FMN is a capability supporting the command and control and decision-making in future operations, through improved information sharing. It provides the agility, flexibility and scalability to respond to emerging requirements of any mission environment in future NATO operations, delivering cost-effectiveness and promoting the maximum reuse of existing standards and capabilities. Future mission networks with an FMN stamp will significantly reduce the interoperability gap between coalition partners.

NATO's members closest to potential adversaries are highlighting the need for greater Deterrence and Defence and committing to play their part:

"As Framework Nation for the NATO Force Integration Unit and the Multinational Corps Northeast in Szczecin, we are committed to help deter and defend against any threats to the Alliance's security, which is our goal. Solid IT is critical for resilience, as modern IT warfare can cause massive disruptions to our networks. It is paramount that everyone, including policymakers, recognizes supreme IT as NATO's nervous system."

Polish Military Representative to NATO,
LtGen Andrzej Fałkowski

Budgets remain tight, but there are options within these constraints. NATO First Solutions (N1S) contributes to preserving and leveraging the level of interoperability acquired in a coalition environment, through seamless integration with existing NATO capabilities, avoiding redevelopment costs, implementation, support and training on diverse systems delivering equivalent capabilities. N1S helps Nations guarantee interoperability, ensure cost-effectiveness, reduce complexity



<https://www.flickr.com/photos/soldiersmediacenter/3268871691/in/photolist-arHcFj-7t7YnW-7HbTME-6PBzj7-7oEd7H-5SSAhx-5CYyZ5-4LKdLl-5YW2PN-5YRPEK-7H7YtB-2S5NLu-4ZUMRk-5Uaoij>

NCO Academy Teaches Leadership in Virtual Environment

continued ...



and provide the same IT platform used during exercises and theatre operations.

4. Political Adaptation

As part of political adaptation, NATO's partners play an essential role in the Alliance's efforts to project stability. Through cooperative security, the Alliance works closely with its partners to address security threats and challenges from a 360 degree perspective, securing NATO's borders. This is a partnership built on the International Security Assistance Force (ISAF) coalition, where more than 40 NATO Allies and partners operated side-by-side and developed an unprecedented level of interoperability. Interoperability built on a common IT platform, allowing information and intelligence sharing between Allies and partners to ensure operational success. If ISAF was able to reach this level of interoperability during operations, NATO must be able to achieve the same as it faces a new challenge:

"We know we can't afford to lose the political and military interoperability with our partners we built over the past years. In fact, that NATO-built interoperability underpins other multinational operations even when NATO is not in the lead. That's why we launched the

Interoperability Platform (IP). One of its main roles is to explore how to preserve, strengthen and modernize technical interoperability with partners for possible future operations, including when it comes to IT."

NATO Deputy Assistant Secretary General for Political Affairs & Security Policy, Mr James Appathurai

Close cooperation with partners is critical to NATO's resilience and to help build partners' own through defence capacity building. NATO, the institution, has the mechanisms. The NATO-Ukraine Command, Control, Communications and Computers (C4) Trust Fund is helping NATO assist Ukraine build solid IT infrastructure, which increases its resilience. This type of mechanism and the associated technical cooperation can easily be replicated with other partners who rely on old Soviet equipment and IT systems from Russia, if the will in NATO and the partner exists to wean them off this dependence on Russia.

Even if Russia is playing an active role in redesigning the current security landscape, non-state actors like ISIL-Daesh represent an increasing threat to the security of Allies and partners, reaching deeply into Western Societies. *"The threat is alive and current. Another attempted attack is almost certain,"* commented EUROPOL Director Rob Wainwright recently. Working with



Photo by Fred W. Baker III

<https://www.flickr.com/photos/soldiersmediacenter/1223119340/in/photolist-5YW2PN-5YRPEK-arHcFj-7H7YtB-7t7YnW-7HbTME-2S5NLU-6PBzj7-7oEd7H-4ZUMRk-5SSAhx-5CYyZ5-5UaoiJ-4LKdLr>
Army National Guard Sgt. Rebecca Pilmore talks to her team as driver Pfc. Lucas Graham (right) maneuvers through simulated convoy training Aug. 9.



•<https://www.flickr.com/photos/35703177@N00/3201122807/>
Cpt. Kevin Stein calls in close air support from an A-10 gunship during 2nd BCT's Virtual Joint Fire Coordination Exercise

partners in the Middle East and beyond, the European Union and other international organizations is paramount in containing and preventing future attacks. Even if counter-terrorism is a sovereign issue, it relies heavily on intelligence and information sharing between Nations. Militants like Daesh have proven to be technically savvy and able to create a significant strategic advantage in modern IT warfare technics, at little cost. Their social media strategies and propaganda continue to draw foreign fighters from Western societies. Imagine the damage when their recruiters include cyber hackers and access classified government information, with far more disastrous consequences than WikiLeaks or the Panama Papers hack. If we do not maintain a solid IT infrastructure, protected from attacks and able to allow intelligence sharing, the consequences may become strategically damaging and physically deadly.

5. Conclusion

NATO's IT infrastructure must be more resilient, to maintain NATO's technical advantage and ensure the Alliance can bring to bear everything it can in an integrated whole for the needs of 21st century warfare. Information warfare is now essential. Hybrid warfare continues to mark the current security landscape and represents an increasing threat to the Alliance:

"As NATO's IT provider, we are working 24/7 to defend NATO's networks, and are providing the Alliance with a modernized IT that meets the 21st Century security challenges. In an era where the entire globe is connected through cyber space making NATO extremely vulnerable to attacks, Alliance's IT dimension is critical because we never know when we will have to push the system to its breaking point."

NCI Agency General Manager, Mr Koen Gijsbers

Without modern, effective and resilient IT infrastructure, NATO's Long-term Adaptation remains a strategic dialogue without technical substance. Modern, robust and resilient IT infrastructure is critical in the fulfilment of NATO's core tasks. The cost of 'doing business' in the 21st century defence sector has a different price tag than during the Cold War. Continuous adaptation and innovation of NATO is fundamental; this means that paying the bills for defending the Alliance's nervous system is not an option, but a must.

³ Time, 16 May 2016, *Europe's Top Cop: It's almost certain terrorists will try to strike again*, by Vivienne Walt - The Hague - Netherlands.



Charting a course to NATO membership: Understanding Montenegro's maritime strategy

Brooke A. Smith-Windsor



Brooke Smith-Windsor, PhD, is senior maritime analyst at the Research Division of the NATO Defense College (NDC), and former Director of Strategic Guidance at the Canadian Department of National Defense. The views expressed are the author's and do not necessarily represent those of the NDC, NATO or the Government of Montenegro. A longer version of this paper was originally published as NDC Research Paper No. 129, April 2016.

On 2 December 2015, a small Western Balkan country bordering the Adriatic Sea and one of modern Europe's newest democracies, Montenegro [Map 1], was invited to begin accession talks to become NATO's 29th member state. NATO's Secretary General, Jens Stoltenberg, chose to describe the development this way:

It is for our shared security. It is about Montenegro freely choosing its own path as a sovereign nation. The progress that Montenegro has made also helps to pave the way for membership of the European Union ... Together, NATO's Open Door and the enlargement of the EU have advanced security and stability throughout Europe and have contributed to our vision of a Europe whole, free and at peace.

Membership in NATO is a two-way street. Member states are security consumers, but they are also expected to be security providers. And maritime security in the Adriatic Sea is no exception. As a result, Montenegro has been challenged to define its national maritime strategy with a view to possible NATO (later EU) accession. As the EU's 2012 Maritime Strategy for the Adriatic and Ionian Seas observed:

There are also more passenger ships' crossings per year compared to other regions, while oil and gas transportation is increasing. Beyond commercial maritime traffic,





Joint press point with NATO Secretary General Anders Fogh Rasmussen and the Prime Minister of Montenegro, Milo Djukanovic

<https://www.flickr.com/photos/nato/13424852273/in/photolist-msiSse- msii1t-mshSn- msii7a- dC5pxW-E1JxKr- DYxDqQ-DGRTP7- E1Jx4g-E1Jwxr- DcfvPJ-DczSkK- DczRXv-DYxCMA- f7wRQY-f7hDFt-GorWex-HiPsNk- HfSvKA-HasQ8w- GorYoT-GTYMCo- GorZ26-HfStsu- HiWHdZ-Hazrgf- Hazv71-Hazvcm-HcTtMD-GoqouJ- Hazt7u-HazrSW- Goqojo-HiWGin- HiWHwz-HazusaA- HazurJ-Hazrp1- GTFT9Q-HfZpj5-Goqn6b-Goqj5w- GozjiZ-o3Q8QP- nJyjqU-o23KWX- o1KxNi-nJyj9- o1Ky12-nZ1fYd>

the Adriatic and Ionian seas are used by criminal networks engaged in irregular migration and other illegal activities. The capabilities of public authorities to monitor maritime traffic, respond to emergencies, save human lives, restore the marine environment, control fisheries activities, and cope with security threats and illegal activities shall be enhanced.¹

Already in July 2008, Montenegro had issued two documents that had endeavoured to define its overarching defence and security priorities, taking into account maritime and other national security challenges: the National Security Strategy and the subordinate Defence Strategy.² Both documents were careful to stress that the nation could not realistically meet all its security needs acting alone: "Montenegro believes that small countries can best provide and solve their own security by accessing the system of collective security."³ Thus, Podgorica's appreciation, early on, of the security "consumer-provider" logic

inherent in NATO and continental integration was evident. What this has specifically meant for the Montenegrin navy is now explored according to the three possible naval functions presented by the renowned naval theorist, Ken Booth: constabulary, military and diplomatic.⁴

Constabulary role

In order to safeguard maritime sovereignty and respond to any contingency threatening internal stability and order, resource enjoyment and development, the first step is knowing what is happening in real time on, below and above the sea. To deliver, the 2013 *Strategic Defense Review* committed to the "implementation of the 'Maritime Information Management System—MIMS' [to] provide continuous monitoring of Montenegro's territorial waters, the continental shelf, electronic exchange of data in real time

¹ European Commission, *A Maritime Strategy for the Adriatic and Ionian Seas*, 30 November 2012, COM(2012) 713 final – EN: 10.

² Montenegro, *National Security Strategy*, Podgorica, EN - September 2008; Montenegro, *Defense Strategy*, Podgorica, EN, October 2008.

³ Montenegro, *National Security Strategy*: 4.

⁴ K. Booth, *Navies and Foreign Policy*, London: Croom Helm Ltd., 1977.



with state institutions and countries in the Adriatic-Ionian region, NATO and the EU.⁵ With respect to presence (i.e. sovereignty patrols), the navy has transitioned from the employment of the Kotor class in this function due to prohibitively high training, operational and sustainment costs. Alternatively, the two Končar and one Lubin class vessels have been brought back into operational use pending the purchase of modern patrol boats. The Montenegrin navy has also pledged to develop “in cooperation with relevant civil institutions and countries in the region... the capacity to respond to different crisis situations, particularly in search and rescue (SAR), environmental incidents and the fight against terrorism.”⁶ This includes Montenegro’s ongoing participation (alongside Albania, Croatia, Greece, Italy and Slovenia) in the so-called Adriatic Ionian Initiative (ADRION) of regional navies designed to optimize interoperability and coordination of activities at sea.⁷

Military role

By aspiring to join NATO, a military role for Montenegro’s navy is also affirmed. The 2016 Long Term Development Plan states, “In the case of acquiring full membership in NATO, Montenegro will engage forces developed under the NATO defense planning process (declared forces) in defending the allies and build its defense in the event of armed aggression, in the system of collective defense (Article 5).”⁸ Where support to an internationally recognized law of the sea is concerned, it is also useful to recall that Montenegro ratified the 1982 United Nations Convention on the Law of the Sea (UNCLOS) on 23 October 2006.⁹ Moreover, while the Montenegrin navy does not aspire to operational blue water capabilities in its own right, this does not mean that it cannot contribute to the rule of law and crisis response on or from the High Seas. It can do so of course by providing personnel trained and equipped to NATO and EU standards to be embarked upon the naval assets of others. Montenegro has already been acting in this fashion, even before NATO and EU accession, including the international counter-piracy mission off the coast of Somalia.

Diplomatic role

The diplomatic role of navies has been described as concerning “the management of foreign policy short of the actual employment of force. Diplomatic applications support state policy in particular bargaining situations or in the general

⁵ Montenegro, Ministry of Defense, *Strategic Defense Review of Montenegro*, Podgorica, EN, July 2013: 31.

⁶ *Ibid*: 31.

⁷ Remarks delivered at the expert roundtable, “Securing the Adriatic”, 4-5 September 2015, Bar, Montenegro, co-organized by the NDC, Allied Maritime Command (MARCOM) and Government of Montenegro.

⁸ Provisional translation of the Long Term Development Plan provided by a Ministry of Defense official.

⁹ Montenegro, *Official Gazette of Montenegro*, 17/07.



continued ...



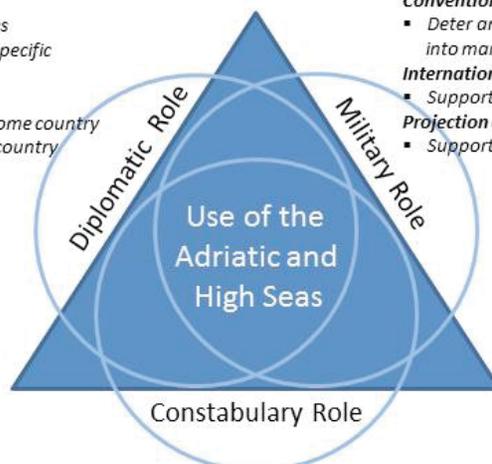
Navy of the Armed Forces of Montenegro *de facto* maritime strategy*

Negotiation from strength

- Reassure and strengthen allies and associates
- Improve one’s ability to affect the course of specific diplomatic negotiations

Prestige

- Provide psychological reassurances for the home country
- Project a favourable general image of one’s country



Conventional deterrence and defense

- Deter and if necessary defend against hostile intrusion into maritime frontiers

International order

- Support an internationally recognized law of the sea

Projection of force

- Support international peace-keeping operations

Constabulary Role

Coastguard responsibilities

- Sovereignty
- Resource enjoyment
- Maintenance of good order

Nation-building

- Contribute to internal stability
- Contribute to internal development

Author’s interpretation derived from K. Booth, Navies and Foreign Policy

international intercourse.”¹⁰ In this context, the navy – by committing to meet and demonstrate its achievement of NATO operating standards to uphold the rule of law in the Adriatic and beyond – has no doubt strengthened Podgorica’s hand in convincing the Alliance and the local population of the preparedness of Montenegro for membership through the value added in maritime security that it would represent.

Conclusion

By making judicious choices about the contributions of Montenegro’s navy to national defense and security priorities, and by also nesting them in wider inter-agency, regional, NATO and EU strategies and initiatives, a seemingly realistic and comprehensive maritime strategy has taken shape. Figure 1 offers a visualization of this *de facto* maritime strategy based

on the Booth model. The sides of the triangle are overlain with circles to represent the mutual reinforcement and in some cases overlap in the execution of the respective roles within Montenegro’s naval trinity.¹¹ The picture revealed serves to demonstrate how even a small country like Montenegro with limited means may, if committed to the rule of law, leverage its seaward position on a critical European waterway to position itself as a legitimate participant in the transatlantic bargain and continental integration.

¹⁰ Canada, Department of National Defense, *Leadmark: The Navy’s Strategy for 2020*, 18 June 2001, Chapter 3.

¹¹ Eric Grove was the first to overlay Booth’s model with such circles in his influential work, *The Future of Sea Power*, London: Routledge, 1990.



50 years in Rome 65 years serving NATO

In 1966, the French President Charles de Gaulle announced his decision to withdraw French troops from the integrated NATO command structure. His action had many serious implications for the Alliance, amongst which was the immediate need to relocate all NATO commands and facilities located on French soil, elsewhere. One of these structures was the NATO Defense College, located in the heart of Paris in the artillery wing of the École Militaire. The underlying reason for France's disengagement from the integrated military command structure was de Gaulle's wish to make France more independent, allowing it to regain its former prestige and its status as a great power. As a matter of fact, the newly developed French nuclear capability enabled the government to act more confidently in dealing with its transatlantic allies, allowing France to exercise greater independence.

As soon as de Gaulle announced that all foreign forces and NATO facilities had to be removed from French territory, a number of countries showed interest in hosting the College. A new site was quickly identified for the NATO Defense College, thanks in no small measure to the tenacious diplomacy of Manlio Brosio (NATO Secretary General 1964-1971), a widely respected former Ambassador of Italy to Moscow, London, Washington and Paris. His insistence on the need to find a site for the College brought a ready response from the Italian government, whose formal offer to host the College in Rome was sent to the North Atlantic Council on 14 September 1966. The offer was officially accepted a day later.

Over the years the College has developed and organized many courses and

events which have had an impact on its institutional life, one of the most important being the annual Conference of Commandants. The College's importance is widely recognized, a number of Anciens having gone on to hold high positions within NATO, as well as in Alliance and partner nations. This year's celebrations to mark the 65th anniversary of the NDC's foundation and the 50th anniversary of its relocation to Rome will take place in mid-October, coinciding with the Annual Anciens' Conference and Seminar. This year, the Seminar will focus on the need to strengthen ties between NATO partners in order to address contemporary security challenges, including the threat posed by ISIL from the Middle East to Africa, the reinforced Russian military presence in the Mediterranean region, and the refugee crisis in Europe.

Among the many guests expected to celebrate this significant milestone in the history of the NDC will be the President of the Italian Republic Sergio Mattarella and NATO Secretary General Jens Stoltenberg, in addition to diplomatic representatives and military authorities from NATO member states. This will be a fitting occasion to commemorate the history and achievements of our College, whose activities have changed appreciably in response to the shifting trends in international events, ensuring that its contribution to the Alliance and its trusted partners has at all times been in line with informed assessment of priorities.





Our Courses

Senior Course 128



BELGIUM

Col J. POESEN

CANADA

*LtCol P. GODBOUT
Col D. SAVARD*

**CZECH
REPUBLIC**

Col M. BULKA

DENMARK

LtCol C. WAMMEN

EGYPT

LtCol K. RADY

FINLAND

Cdr P. RANTAKARI

FRANCE

*Col J. BOUILLAUD
CAPT. B. HÉDÉ-HAÛY
Col B. HELUIN
CAPT. P. LE GAC
LtCol P. LOVICONI
LtCol W. SCHMIT*

GEORGIA

LtCol K. PETRIASHVILI

GERMANY

*Col A. BRENDEL
Brig.Gen. W. HAUMANN
CAPT. G. KOCH
Mr A. LIPPELT
Mrs B. WEBER*

GREECE

*Cdr D. ALEVRAS
LtCol G. BONTZIOS
Cdr P. GEORGAKOUDIS
Col A. PLATIAS*

HUNGARY

LtCol L. SZÜCS

ITALY

*Col G. CHIRIATTI
LtCol A. NICOLLI
Cdr M. ORINI
LtCol M. POMIATO
Cdr V. PULLEZ
LtCol S.A. SCUDERI*

JAPAN

LtCol T. KOMATSU

JORDAN

Col K. ALZYOD

KYRGYZSTAN

LtCol G. JARASHEVA

NETHERLANDS

*Col M. HENDRIKSMA
Col R. SCHOONDERWOERD*

NORWAY

*Mr T. HOEL STABELL
Cdr SG P.O.H. JANITZ
Mr K.A. KNUITSEN
Col F. OMMUNDSEN*

POLAND

*Col R. DAJLIDO
LtCol P. MARCINKOWSKI*

PORTUGAL

Col M. ROSA

QATAR

Col M. AL-RASHDI

**REPUBLIC
OF KOREA**

Col K. ROH

ROMANIA

Col C. SPÎNU

SLOVENIA

Col V. ARKO

SPAIN

*Cdr F. AZNAR FERNÁNDEZ-MONTESINOS
LtCol I. OJEDA GONZÁLEZ-POSADA
CAPT. J. RIPOLL CANTERO
LtCol M. SÁNCHEZ DE TOCA ALAMEDA
Col F. TORRES SAN JOSÉ
Col F.J. VIDAL FERNÁNDEZ*

SWITZERLAND

Col L. CURRIT

TAIWAN

LtCol S.T. CHOU

TUNISIA

CAPT. M. OUENNICHE

TURKEY

*Maj. L. AKÇIÇEK
LtCdr S. BAKIŞGAN
Maj. A. BORA
Mr Ö. CANBAŞ
Ms B. İNAN
LtCol Ö. ÖZÇELİK
Mr K. ÖZÇETİN*

**UNITED ARAB
EMIRATES**

CAPT. H. ALSHURAF A

UNITED KINGDOM

*Cdr J. FOREMAN
LtCol E. HARRIS
WgCdr J. LAFFERTY
Mr D. MCELROY
WgCdr E. NORTON
Col S. THOMSETT*

UNITED STATES

*LtCol M. BAKA
Cdr D.C. HOLMES
Col E. HOOK
LtCol P. LENZ
LtCol W. RIVERA*



NATO Regional Cooperation Course 15

Our Courses



ALGERIA

LtCol M. BENYOUCEF
LtCol K. CHAMI
Couns. S.A. KEHAL

ITALY

LtCol L. ACCOGLI
Col F. BONSIGNORE
LtCol S. PIOLETTI
Ms N.B. VELLONE

PAKISTAN

Col M. YOUSAF

EGYPT

Couns. M.S.E. EL SHERIF
Brig Gen A.K.M.K.A.A. ELSHAMLOUL
Col B.A.A. SHAIR

JORDAN

Third Secr. O.O. AL-MASHINI
Col M. ALSMADI
Brig. Gen E. SAMARDALI

SPAIN

LtCol J.A. PEREIRA GARCIA
CAPT. J. VEGARA JIMENEZ

FRANCE

CAPT. J. MOREL

KUWAIT

LtCol D.M. ALDABBOUS

TUNISIA

Col M. HATTAB
CAPT. F. SETTEY

GEORGIA

LtCol B. KIKNAVELIDZE

MAURITANIA

LtCol L. EL MAMOUNE
Col M. GREIVA
Maj. A.K. MOHAMED ALY

TURKEY

Maj. C. BAYRAKTAR
LtCol H. SAHIN

IRAQ

Mr A.A.A. AL-ASHEQER
Mr I.S.D. DARRAJI
Mr H.T. DHARI
Mr Y.A. JAAFAR
Mr Y. SHAMKHI JEBUR

MOROCCO

Col F. EL BOUCHIKHI
Col S. IZIKI
LtCol M. KOUZA

UNITED STATES

LtCol B. GOLDEN
LtCol W.J. MCKNIGHT



Our Courses

Modular Short Course 128-1



Modular Short Course 128-2



Modular Short Course 128-3



Modular Short Course 128-4



Modular Short Course 128-5



Modular Short Courses form part of the five-month Senior Course. Since the Senior Course is divided into several Study Periods on specific themes, these can be attended by military officers and civilian officials who are not able to join the Senior Course for its entire duration. To make this possible, the NDC offers five Short Modular Courses during every Senior Course: each MSC is designed to provide participants with an opportunity to update and improve their knowledge of key political, military, defence-related, economic and socio-cultural questions with implications for the Alliance.



Our Courses

IPOC 2016/1



The Integrated Partner Orientation Course (IPOC 2016/1) on “NATO Present and Future” was held at the College from 18 to 22 April 2016, in conjunction with Senior Course 128 and Short Modular Course 128/3. This edition brought together 20 participants from 17 Partner Countries. The course was designed to analyse the nature of NATO as an organization, examining its activities and policies as well as its contribution to the field of security. Within this framework, it was possible to focus on the changing nature of the security environment and the relevant steps and adaptations NATO must undertake over the next few years.

From 9 to 13 May 2016, the Generals, Flag Officers and Ambassadors' Course (GFOAC 2016-1) took place at the NATO Defense College. On this occasion, 38 high-level civilian and military participants from NATO, the Partnership for Peace (PfP), the Mediterranean Dialogue (MD), the Istanbul Cooperation Initiative (ICI) and Global Partner countries gathered for this year's course entitled “NATO in the light of the Warsaw Summit”.

GFOAC is a high-level course aimed at one- to three-star officers and civilians of equivalent rank from the member countries of NATO, the Partnership for Peace, the Mediterranean Dialogue, the Istanbul Cooperation Initiative and Global Partners. The course seeks to promote mutual understanding of contemporary security challenges and NATO's interests and capabilities.

GFOAC 2016/1



From 16 to 20 May 2016, the fifth Senior Executive Regional Course was held at the NATO Defense College with the participation of 21 Ambassadors, Generals and Senior Officers from 15 NATO and Partner Countries.

The aim of this five-day course is to promote mutual understanding on issues related to the Mediterranean and the Gulf, to enhance the understanding of current security challenges to the Alliance and its partners, and to allow participants to familiarize themselves with current and prospective issues facing NATO.

5th Senior Executive Regional Course





Our Guests

27-28 January

Visit by Vice-Admiral Robert A. Davidson, Military Representative of Canada to the NATO Military Committee. During the first day of his visit, VAdm Davidson received an update on College activities from the Commandant and Dean and attended Study Project (SP) presentations by several Senior Course 127 Committees in the Maynard-Thorn Hall.

The following day, VAdm Davidson delivered a lecture of opportunity entitled "Strategic Outlook for NATO".



05 February

Supreme Allied Commander Transformation General Denis Mercier visited the NATO Defense College, delivered the Graduation address to Senior Course 127 and, along with NDC Commandant Major General Janusz Bojarski, Dean Dr Daria Daniels Skodnik and senior NDC leaders, presented individual diplomas to graduating Course Members.

23 February

The guest of honour for the inauguration of Senior Course 128 was JFC Naples Commander Admiral Mark Ferguson III (USA N), who is also Commander of U.S. Naval Forces Europe and U.S. Naval Forces Africa.

Admiral Ferguson, in his address entitled "NATO's Current and Future Security Environment – Joint Forces Command Naples Perspectives", made an extensive and authoritative analysis of the current and foreseeable security environment, focusing on ongoing operations and the wide-ranging scenarios which Course Members would be studying in considerable detail during their time at the College.



23 February

The Chief of the Defence Staff of the Islamic Republic of Afghanistan, General Qadam Shah Shahim, visited the NATO Defense College.

The aim of this visit was to further strengthen the College's relationship with the Islamic Republic of Afghanistan, which is sending an increasing number of participants to the NATO Regional Cooperation Course and Senior Course.



Our Guests

25 February

The NATO Defense College had the honour of welcoming His Excellency Sheikh Thamer Ali Sabah Al-Salem Al-Sabah, President of the National Security Bureau of Kuwait.

Sheikh Thamer was in Rome attending a conference on the theme of "Arab geopolitics in turmoil. Perceptions, unknowns and policies", organized by the NATO Defense College Foundation in cooperation with the Gulf Research Center Foundation, the NATO Science for Peace and Security Programme, the NATO Defense College and the University of Jordan. Before the conference, the Sheikh took the opportunity of meeting NDC Commandant MGen Janusz Bojarski, Dean Dr Daria Daniels Skodnik and senior NDC leaders, to discuss a range of issues concerning the Gulf region and the importance of NATO's cooperation.



15 March

The NATO Defense College had the privilege to host LtGen Enzo Vecciarelli, Italian Deputy Chief of Defence Staff, along with three authoritative speakers who addressed the Course on Italian foreign, security and defence priorities as part of the "Italian Day" in SC 128's European & Mediterranean Dialogue Security Perspectives Field Study.

The "Italian Day" concluded later in the afternoon with a visit to the Quirinale Palace, former seat of popes and kings, which is now the official residence of the President of the Italian Republic.

04 April

H.E. Ambassador Fatih Ceylan, Permanent Representative of Turkey to NATO, visited the NATO Defense College and delivered a lecture of opportunity to SC 128 and NRCC 15.

The lecture was entitled "Challenges and Threats to NATO stemming from the South, and Turkey's perspectives". It mostly focused on the challenges and threats that NATO is facing currently and emphasized the importance of having a single, strong voice.





Our Guests

29 April

The Italian Undersecretary for Defence Domenico Rossi visited the NDC on the occasion of the Graduation Ceremony for the 15th NATO Regional Cooperation Course.

As guest of honour during the Graduation Ceremony, Undersecretary Rossi spoke about "Italy and the challenge of ensuring Mediterranean Security". He underlined the radical transformation taking place in the Middle East and North Africa, and then pointed at three necessities to overcome the crisis in the Mediterranean and terrorism: shared security in a region where countries are linked by critical ties, supported by shared resources for a strong and common purpose; a defence structure devoid of physical or other barriers that might divide countries, peoples and cultures; and finally, regaining a shared culture which is the unifying characteristic of Mediterranean countries.



17 May

The NDC had the honour of hosting the President of the Republic of Poland Andrzej Duda.

President Duda was warmly welcomed by NDC Commandant Major General Janusz Bojarski.

During his visit, President Duda gave a speech to distinguished guests, Course Members of SC128 and other participants, focusing on the expectations for the Warsaw Summit, stressing that "a credible deterrence is only possible through the increase of military spending in the Alliance", before answering questions.

The visit of the President was the first official act of the celebrations planned for the NDC's double anniversary, the 50th anniversary of its historic relocation to Rome and the 65th anniversary of its foundation.

08 June

The Chief of Defence of the Republic of Latvia, LtGen Raimonds Graube, visited the NATO Defense College. The Ambassador of the Republic of Latvia to the Republic of Italy H.E. Mr Artis Bertulis was also present.

The aim of the visit of the Latvian CHOD was to strengthen relations between the College and the Republic of Latvia.

Thanks to the visit, the Latvian Chief of Defence was able to reacquaint himself with the NDC where, in 2003, he took part in the GFOAC, thereby gaining first-hand insight into the unique contribution to strategic-level education and research made by the College.





Our Guests



08 June

The Deputy Director General of the European Union Military Staff, Rear Admiral Waldemar Gluszko, visited the NATO Defense College. RAdm Gluszko was welcomed by NDC Commandant Major General Janusz Bojarski. After an extensive briefing on the NDC's mission and activities, RAdm Gluszko had the opportunity of meeting fellow Polish officers attending Senior Course 128.

28 June

H.E. Ambassador Masafumi Ishii, Ambassador of Japan to the Kingdom of Belgium, visited the NATO Defense College and delivered a lecture focusing on Japan-NATO relations. During his speech, the Ambassador stressed the importance of European and Asian democracies, including Japan, sharing their perspectives and acting jointly to address common security challenges.



30 June - 1 July

The 46th meeting of the NDC Academic Advisory Board (AAB) took place, chaired by the Chairman of the NATO Military Committee (CMC), General Petr Pavel.

The main purpose of the AAB is to advise the NDC and the Commandant on ways to continue improving the academic, research and outreach activities of the College; to provide close ties with similar organizations; and to offer practical links with NATO HQ and Allied Command Transformation, so that the College's educational, research and outreach strategies contribute to those of the Alliance as a whole. This meeting focused, in particular, on the ongoing implementation of the Courses of Action recommended in the Final Report on the Review of the NDC (MCM-0133-2014).



1 July

The Georgian Minister of Defence, H.E. Tinatin Khidasheli, visited the NATO Defense College. The aim of the visit was to deliver a Lecture of Opportunity to Senior Course 128 and further strengthen relations between Georgia and NATO. She was accompanied by Ambassador Karlo Sikharulidze, Ambassador Plenipotentiary and Extraordinary of Georgia to Italy; the Deputy Minister of Defence of Georgia, Mr Besik Loladze; and high-ranking officers and officials from the Georgian Ministry of Defence.





Our Publications

Research Paper Series

February 2016

RP 128 - NATO's Southern Flank Does Not Stop in North Africa: Addressing Terrorism Beyond the Sahel
Meghan J. KING

April 2016

RP 129 - Navigating towards NATO membership: Montenegro's maritime strategy in context
Brooke A. SMITH-WINDSOR

RP 130 - Article 5 of the Washington Treaty: Its Origins, Meaning and Future
Bruno TERTRAIS

July 2016

RP 131 - "Substantial Combat Forces" in the Context of NATO-Russia Relations
William ALBERQUE

Forum Paper Series

March 2016

FP 25 - NATO and Asia-Pacific
Robert AYSON, Allan DU TOIT, Stephan FRÜHLING, Andreas HEINEMANN-GRÜDER, Yee-Kuang HENG, Geunwook LEE, Christina LIN, Mohan MALIK, Alexander MOENS, Heidi REISINGER, Christopher M. SCHNAUBELT, Philip SHETLER-JONES, Brooke A. SMITH-WINDSOR, Stéfanie VON HLATKY, Tsuneo 'Nabe' WATANABE and Mark WEBBER
Foreword by Rear Admiral Allan du Toit, Royal Australian Navy, Australian Military Representative to NATO, 2013-2015
Edited by Alexander Moens and Brooke A. Smith-Windsor

Research Report Series

March 2016

RR 01/16 - In Troubled Waters: NATO's New Maritime Activity in the Aegean
Andreas JACOBS

April 2016

RR 02/16 - A Nuclear Free Zone for the Middle East: Implications for NATO
Sameh ABOUL-ENEIN

May 2016

RR 03/16 - Is the 2010 Strategic Concept still fit for purpose?
Senior Course 127, Committee 8

RR 04/16 - NATO's roadmap and priorities for the 2016 Warsaw Summit agenda
Senior Course 127, Committee 5

June 2016

RR 05/16 - Deterring a Nuclear Russia in the 21st Century: Theory and Practice
Andy CORBETT

RR 06/16 - Turkish-Israeli Rapprochement with NATO
Hasan AYGUN

RR 07/16 - Is Consensus Still Necessary Within NATO?
Loren G. TRAUGUTT

Conference Report Series

March 2016

CR 01/16 - How to Respond to Anti-Access/Area Denial (A2/AD)? Towards a NATO Counter-A2/AD Strategy
Guillaume LASCONJARIAS and Alessandro MARRONE

April 2016

CR 02/16 - NATO and Russia: Managing the Relationship
Beyza UNAL

Fellowship Monograph Series

May 2016

Fellowship Monograph 7 - How NATO's Values and Functions Influence its Policy and Action
Alexander MOENS



“Vox Collegii” is the Magazine of the
NATO Defense College

Edited by
NDC Public Affairs Office
Via Giorgio Pelosi, 1
00143 ROME (ITALY)
Phone: +39 06-50525344
Fax: +39 06-50525410
E-mail: pao@ndc.nato.int

www.ndc.nato.int

Find us on

