

# NATO ACCREDITED CENTRES OF EXCELLENCE

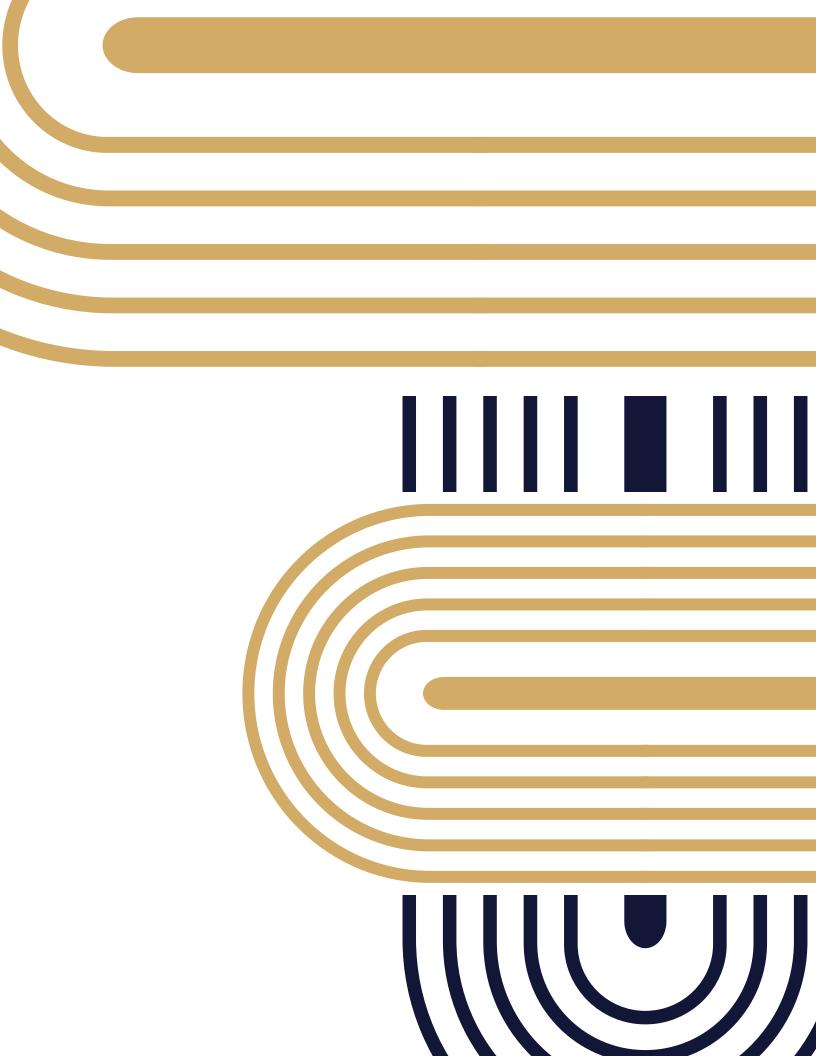
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#### SUPREME ALLIED COMMANDER TRANSFORMATION

#### GENERAL PHILIPPE LAVIGNE, FRENCH AIR AND SPACE FORCE



#### SACT MESSAGE FOR THE 2024 COE CATALOGUE NORTH ATLANTIC TREATY ORGANIZATION Supreme Allied Commander Transformation

I am honored to present the 2024 edition of the Catalogue of NATO-accredited Centers of Excellence (COEs), which demonstrates Allied Nations' enduring commitment to collaborative excellence and cutting-edge expertise.

As we progress in our global security mission, the central role of the COEs in strengthening our collective defense capabilities has become increasingly evident. I would like to acknowledge the growing importance of the COEs, for doctrine development, lessons learned, education & training, exercise participation and experimentation, which are the tools and means of implementing NATO's transformation.

2023 saw a significant milestone with the accreditation of the Space COE, a critical step in enhancing our space security readiness. With the establishment of the Climate Change and Security COE well underway, the Alliance looks forward to its forthcoming contributions to addressing the acute challenges

posed by climate-related security risks. In the midst of these developments, COEs continue to play a pivotal role in providing critical support to Ukraine, fostering key partnerships, and offering assistance in critical areas.

Looking ahead, the next COE Marketplace, scheduled for May 2024 at NATO Headquarters in Brussels, promises to foster a thriving environment for sharing insights and expertise among member nations. Once again, the contribution of the COEs to my priorities for Warfare Development, especially through their participation in working groups and wargames related to NATO's Digital Transformation and Cross-Domain Command, towards a Multi-Domain Operations-enabled Alliance, will be essential.

As we face the opportunities and challenges on the horizon, I extend my deepest gratitude to all NATO Allies and Partners for their unwavering support of COEs. Together, we remain steadfast in our pursuit of a more secure and resilient future, underpinned by the collective strength and enduring commitment of all NATO-accredited COEs.

Philippe Lavigne General, French Air and Space Force Supreme Allied Commander Transformation

#### What is a NATO-accredited COE?

A NATO-accredited Centre of Excellence (COE) is a multi-nationally or nationally established and sponsored entity, which offers recognized expertise and experience within a defined subject matter area to the benefit of the Alliance within the four pillars of NATO's COE program. A COE is not a part of the NATO Command Structure (NCS) or of other NATO entities, but forms part of the wider framework that contributes to the functioning of the Alliance.

# **Background**

The idea for NATO-accredited COEs originated in MC 324/1, "The NATO Military Command Structure," dated 14 May 2003. The Military Committee (MC) refined this idea into the MCM-236-03; "MC Concept for Centres of Excellence (COE)" dated 04 December 2003. Once the idea and the concept were firmly established, the accreditation criteria was defined. In 2004, IMSM-0416-04, "NATO COE Accreditation Criteria" was agreed on and the first NATO COE was formally accredited on 01 June 2005. MCM-236-03 has been superseded by MC 0685 (Military Committee Policy For Centres Of Excellence) dated 04 December 2019; the NATO COE Accreditation and Periodic Assessment Criteria policy has been updated through MCM-0086 dated 23 June 2022.

# **Principals**

- No cost to NATO;
- Conform to NATO procedures, doctrines and standards;
- No duplication with existing assets;
- Relationships with Strategic Commands through Memorandum of Understanding agreements;
- Relationships with partners are supported and encouraged.

#### **Pillars**

Not every organization can become a NATO-accredited COE. In order to become a COE, expertise must be demonstrated in the four transformation pillars:

- Education, Training, Exercise and Evaluation;
- Analysis and Lessons Learned;
- Concept Development and Standardization;
- Doctrine Development and Experimentation.

#### **Bottom Line**

There are many reasons why a nation or nations, as Framework Nation, decide to offer a Centre of Excellence to NATO. One of the most common reasons is to contribute to NATO whilst at the same time directly benefiting one or more Nations. The number of NATO COEs is growing. Through the MC Concept and the NATO accreditation criteria, COEs have proven to be a successful and enduring model for strong multinational solutions. As a result, the NATO Command and Force Structures are supported by a robust network of COEs, which are nationally or multi-nationally managed and funded and open for participation by NATO and Partner Nations.



# **HQ SACT Coordination with COEs**

HQ SACT's coordination with NATO-accredited COEs is a vital element in ensuring effective collaboration and synergy within the Alliance. While there are numerous essential documents pertaining to collaboration with COEs (several of which are summarized later in the catalogue), HQ SACT Directive 80-03 – HQ SACT Coordination of NATO COEs holds significant influence in shaping daily interactions between HQ SACT and NATO-accredited COEs. Recently updated, this directive serves as the reference, offering guidance and delineating responsibilities for the coordination of NATO COEs within HQ SACT.

The last update of the Directive (15 October 2023) introduces new procedures through a one-year trial period, designating the Joint Force Development (JFD) Directorate to spearhead COE coordination, taking on the responsibilities of the COE FOGO Champion. COEs are strategically organized into communities of interest (6 clusters), enhancing the focus on specific areas of expertise.

The framework for coordination involves key levels within HQ SACT, with:

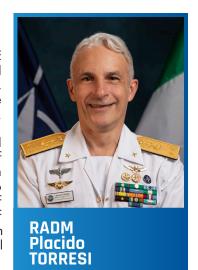
- Deputy SACT acting as the strategic Focal Point of Contact.
- Chief of Staff (COS) exercises oversight of all COE coordination.
- Deputy Chief of Staff Joint Force Development (DCOS JFD) plays a pivotal role, acting as the single flaglevel point of contact for COEs.
- COE Programme Development (CPD) Branch ensures overall coordination through a cluster engagement model, emphasizing collaboration across NATO's COE program pillars.
- Subject Matter Experts (SMEs) contribute to day-to-day functional coordination and content expertize for COEs, with a dedicated SME assigned to each COE.

This comprehensive coordination structure aligns with NATO-wide priorities, enhances strategic guidance, and fosters effective engagement and support for COEs' initiatives. The HQ SACT Directive 80-3 outlines clear responsibilities for each level, emphasizing the importance of COEs in advancing NATO's collective defence capabilities.

# **DCOS - Joint Force Development**

This annual Catalogue proves how in 2023 the NATO-accredited COE community has continued to showcase its effectiveness, adaptability, and resilience in fulfilling the Alliance's top priorities, while further expanding, with the accreditation of the Space COE in Toulouse, France, and the establishment of the Climate Change & Security COE in Montreal, Canada.

However, in the spirit of continual improvement, HQ SACT has introduced new procedures and responsibilities, designating myself, as Deputy Chief of Staff Joint Force Development (DCOS JFD), to lead the coordination with COEs for a one-year trial. CPD Branch has strategically grouped COEs into six clusters; this innovative approach enhances the focus on specific areas of expertise, while optimizing JFD engagement with a more limited number of 4-6 COEs and fostering a more streamlined and specialized collaboration within the whole COE network, and across the four COE transformational pillars.



The focal point for ACT in 2024 remains the implementation of the NATO Warfighting Capstone Concept through the implementation of Warfare Development Agenda (WDA), Multi-Domain Operation (MDO) concept, Innovation and Digital Transformation. COEs' contributions to the various lines of delivery will continue to play a pivotal role in adapting NATO's Military Instrument of Power, contributing to a stronger Alliance.

In conclusion, with my sincere gratitude I thank all the COE Directors and their teams for their dedicated work, and encourage them to remain proactive and creative in generating new ideas and proposals. JFD and your ongoing commitment remains crucial for sustaining and enhancing the COEs' excellent contributions to the Alliance.



# **COE Programme Development Branch in 2023**

#### **COE PROGRAMME DEVELOPMENT BRANCH IN 2023**

In 2023, the COE Programme Development (CPD) branch introduced significant changes to previous HQ SACT coordination mechanisms and responsibilities with the NATO-accredited Centres of Excellence. A one year trial was initiated in October 2023 that aims to provide a more centralized and coherent strategic direction and guidance to the COEs in order to ensure better understanding of NATO priorities and requirements. The new procedures includes the Joint Force Development (JFD)

Directorate assuming all previous COE FOGO Champion responsibilities, and the grouping of the COEs into six clusters to enable more efficient coordination with the CPD.

To ensure a consistent and efficient channel of communication with the COEs, CPD was actively involved in various conferences, events, and virtual symposiums, and online meetings. These efforts encompassed conveying directives during assemblies held between the Deputy Supreme Allied Commander Transformation, ACT Flag & General Officers, and COE Directors. This comprehensive approach extended down to the operational level, including efforts focused on the four pillars, communications, and the Programmes of Work.

Internally, the CPD branch continued its efforts to streamline the Request for Support (RfS) tool, and developed online tutorials for the larger NATO audience. The branch collaborated and planned critical, high visibility events, to include the 2023 COE Directors Conference in Amsterdam and the upcoming promotional convention like the 2024 COE Marketplace at NATO HQ. The primary objective of the Marketplace is to provide a platform for NATO HQ delegations to showcase their national contributions to the Alliance via their COE sponsorship. It further aims to facilitate interaction between IS and IMS staff, and to foster a better understanding and appreciation of the expertise, support, products, and consultation offered by the Centres. These promotional activities have contributed to a heightened awareness of the distinctive capabilities of the COEs within the Alliance, with particular emphasis on their remarkable contributions, especially in the context of growing global security concerns and the ongoing conflict in Ukraine.

#### **COE PERIODIC ASSESSMENTS IN 2023**

Once more this year, the CPD Branch managed to carry out the majority of the scheduled Periodic Assessments (PAs) through on-site visits. In total, seven in person PAs were successfully completed. These face-to-face interactions with the Director and COE personnel provided the CPD staff with a deeper insight into the limitations and individual challenges faced by each of the Centres, simultaneously strengthening the relationship and understanding between the COEs and ACT. This, in turn, fostered a more profound understanding, efficiency, and effective



collaborations within NATO. Additionally, beside the ongoing finalization of the accreditation of the Climate Change and Security COE (CCASCOE), the Space COE passed the NATO-accreditation visit in April 2023 and is presented for the first time on a two pager in this edition of the COE catalogue.

#### **FINLAND AND SWEDEN A&I**

Following the NATO Heads of States and Government's decision at the Madrid Summit in June 2022 to invite Finland (FIN) and Sweden (SWE) to begin Accession Talks, CPD was tasked with coordinating military integration efforts. Finland joined NATO on April 4, 2023, while Sweden is expected to integrate into the Alliance in 2024, pending ratification of the Accession Protocols. These developments represent significant steps in strengthening security and cooperation within the NATO community.



# **NATO Centres Of Excellence – Key Documents**

#### MC 0685 - Military Committee Policy For Centres Of Excellence (04 December 2019)

This fundamental policy document, agreed by the Nations in December 2019, replaced the original MC Concept from 2003 that describes the arrangements for NATO-accredited COEs.

- It covers the definitions, principles, accreditation, further development, relationships, interactions, and legal arrangements that apply to the Military Committee Policy for COEs.
- The Policy confirms that, in accordance with MC 0324/3 The NATO Military Command Structure, the Supreme Allied Commander Transformation (SACT) is the coordinating authority for the NATO COEs.

# MCM-0086-2022 NATO Centres Of Excellence Accreditation and Periodic Assessment Criteria (23 June 2022)

This document supersedes IMSM-0416-04.

- It establishes the criteria for assessment of COEs for their initial NATO accreditation, periodic assessment and re-accreditation in terms of mandatory and highly desirable categories.
- It further describes the accreditation, periodic assessment and re-accreditation process to be employed in accordance with these criteria.

# BI-SC DIR 080-001 – Bi-Strategic Command Directive For The Coordination Of NATO Centres Of Excellence (18 June 2020)

This directive, revised in early 2020 to reflect MC 0685, describes the relationship between HQ SACT (supported Command) and SHAPE (supporting Command) in their interaction with the NATO COEs. It will be revised by Strategic Commands (ACT in lead) in 2024.

- It defines responsibilities with regard to the COEs and the management processes used to maximise the benefits provided by the COEs to the Alliance.
- It further sets out the key processes and battle rhythms used to manage and synchronise all COE coordination activities along with roles and responsibilities.

# HQ SACT Directive 80-03 - HQ SACT COORDINATION WITH NATO-ACCREDITED COEs (3 August 2023) and its REVISION 1 TO HQ SACT DIRECTIVE 80-3 (15 October 2023)

This document describes the responsibilities for the coordination of NATO-accredited COEs in HQ SACT. It includes significant changes to previous HQ SACT coordination mechanisms and responsibilities, and the approved one year trial period commencing 15 Oct 23.

- Its aim is to provide more centralized and coherent strategic direction and guidance to the COEs in order to ensure better understanding of NATO priorities and requirements, as well as to provide a better mechanism to request support within the four pillars of NATO's COE programme.
- It is designed to enhance situational awareness, information sharing and improve visibility of the COEs' Programmes of Work (PoWs).

# HQ SACT Directive 80-05 - NATO Centres Of Excellence Establishment, Accreditation and Assessment Process (8 September 2023)

This directive describes the establishment and accreditation process of a NATO Centre of Excellence (COE) for HQ SACT.

- It defines the roles and responsibilities of HQ SACT staff for each stage of the COE establishment and accreditation process.
- It also identifies the anticipated interactions between HQ SACT staff and other COE stakeholders within NATO and NATO related entities, including National Liaison Representatives (NLRs) to HQ SACT.
- It sets out the COE establishment and accreditation process that consists of nine formal steps with the
  responsibilities of the involved HQ SACT branches explained within each.
   Additional steps, related
  to the coordination and validation of the COE Concept or MOUs, may be initiated by HQ SACT in
  coordination with SHAPE and/or the NATO HQ International Staff (IS) / International Military Staff (IMS)
  as necessary.

# **COE Frequently Asked Questions**

**Are COEs part of NATO?** The Military Committee (MC) Policy MC 0685 (Military Committee Policy for Centres of Excellence) states, "A COE is a multi-nationally or nationally established and sponsored entity, which offers recognized expertise and experience within a defined subject matter area to the benefit of the Alliance within the four pillars of NATO's COE program." We may say that NATO-accredited COEs have one foot within NATO (because they are "part of the wider framework that contributes to the functioning of the Alliance") and they have one foot outside NATO (because they are "not part of the NATO Command Structure or of other NATO entities"). This gives COEs greater flexibility in the relationships with other international and civilian entities.

Where does the COE idea come from? Can NATO "initiate" a COE? As per MC 0685, "A NATO Nation may decide to offer a COE to NATO by formally presenting the offer to the [Chairman of the Military Committee]. That could either be in response to an MC endorsed list or by its own initiative. The MC may, based upon SACT's advice coordinated with SACEUR, accept the offer and task ACT accordingly to proceed with the development as set forth in this Policy."

What is the difference between a NATO-accredited COE and any other COE? As per MC 0685, a NATO-accredited COE (also referred to as a "NATO COE") is a COE that has been established by SACT, has received MC endorsement, and has received subsequent North Atlantic Council (NAC) approval. Only when these steps are complete can a COE be called a 'NATO-accredited COE'. Further, "Once accredited, the NAC may grant a COE international status under the Paris Protocol." If NAC approval has not been granted, then it is not a NATO-accredited COE.

**Can NATO task the COEs?** No, NATO cannot task the COEs, because they are not under command authority of SACT. However, in accordance with MC 0685, "COEs have a functional relationship with HQ SACT and are, consistent with their accreditation, expected to prioritize NATO requests, act as a primary advisor to the NCS in their area of expertise when applicable and have responsibility to support within their means and capabilities, subject to the approval and allocation of resources by their Steering Committee.

**How does NATO request COE products and services?** NATO can request support from a COE by submitting a Request for Support (RfS) through the Program of Work (POW) tool. This is a process within the COE POW Development Cycle (page 11).

Can Nations join/withdraw from a COE after it is NATO-accredited? Yes, they can. The addition of any new Sponsoring Nation to a COE is done through a Note of Joining, to be signed by the joining Nation and the already participating Sponsoring Nation(s). Unless otherwise specified, the Note of Joining will come into effect on the date of the last signature. Any Sponsoring Nation may withdraw from the COE giving the twelve months written notice to all other Sponsoring Nations and by informing the Director and Steering Committee in writing.

**Are NATO-accredited COEs eligible for Common Funding?** As per MC 0685, "COE infrastructure, operating and maintenance costs are the responsibility of the Sponsoring Nations...Exceptional eligibility for Common Funding may be established by the appropriate NATO resourcing authority..."

**Can Partner Nations join COEs?** Yes, they can. Partner Nations can join NATO-accredited COEs as Contributing Partners, which means that they will be able to provide inputs and have access to COE's products and services; however, they will not have voting rights in the Steering Committee. These relationships should be managed by the COEs on a case by case basis, taking security aspects into account.

Can COEs engage with non-military entities, such as industry and academia? Yes they can, moreover they are encouraged to do so. These relationships are managed by the COEs on a case by case basis, taking security aspects into account.

Where can I find more information about the COEs? There are multiple sources available, depending on exactly what you are looking for:

- COE-specific Each COE has its own homepage listed in this catalogue.
- COEs in general ACT's website for COEs is https://www.act.nato.int/centres-of-excellence
- COEs detailed information. This is contained in HQ SACT's information portal called TRANSNET (more information on page 10).

# **COE Management Framework**

#### **COE Steering Committee**

The Steering Committee (SC) is the highest decision making level within a COE. It is the main body for guidance, oversight and decisions on all matters concerning the administration, policies and operation of a NATO-accredited COE. The SC is responsible for the direction, guidance and supervision of the COE. It approves the Program of Work (POW) and the budget, and supervises their execution. The Terms of Reference of each NATO-accredited COE's SC are laid down in their Operational Memorandum of Understanding (MOU).

The SC consists of one representative from each Sponsoring Nation. The SC Chair comes from the Framework Nation (FN), and is not identical with the representative of the FN. Routine meetings of the SC take place at least once a year, and the Chairman of the SC may call additional meetings. Normally, the SC makes decisions by consensus of the representatives. During these meetings, several individuals and groups may be present, but do not have a vote:

- The SC Chair;
- The COE Director (defined below);
- HQ SACT's assigned Subject Matter Expert (SME) is invited to participate, normally to advise the SC on NATO entities' requirements and priorities;
- Other representatives as invited by the SC may attend in an advisory capacity.

The responsibilities and tasks of the SC may include:

- The consideration and approval of additional in-year requests for the POW and possible amendments to the budget;
- Review the budget report and approve the annual Financial Statement;
- Provide guidance on the functional relationships of the COE with other organizations and nations;
- Review and amend the Concept of the COE;
- Propose changes to the MOU and its Annexes.

#### **COE Director**

The Director of a NATO-accredited COE is responsible to the SC for the fulfilment of the mission, the tasks and the operation as well as administration of the COE. Taking into account the requests of HQ SACT, Sponsoring Nations, Contributing Partners, and others, the COE Director prepares and submits a draft POW to the SC for the following calendar year. The SC considers all requests for services and products, including associated costs, and then approves the POW for the COE.

#### Chairman of the COE Director's Conference

COE Directors meet in person, on an annual basis, during the COE Directors' Conference. Although not a formal position within individual COEs, one Director is selected amongst his/her peers to be the conference Chairman for a period of one or two years (according to his/her availability). Tasks conducted by the Chairman include:

- To call representatives and/or specialists to attend the conference, once attendance is approved by COEs' Directors;
- To set the conference topics and agenda;
- To chair the conference in accordance with the respective agenda;
- To promote and foster open discussions amongst members;
- To facilitate negotiation in order to achieve consensus;
- To communicate the Conference results;
- To represent the Directors collectively to relevant authorities when requested and agreed by all of them.

## Requesting COE products and services

HQ SACT coordinates the submission of NATO Requests for Support (RfS) to the COE Programmes of Work (POW). This process is called the "RfS Process". The overall aim of the process (managed by the COE Programme Development (CPD) Branch) is to optimize the use of the COEs, and to prioritize requests when required. In an effort to streamline the process and better use the resources available to the COEs, requestors (including the NATO Command Structure) should primarily use the "RfS Tool" that is available 24/7 on TRANSNET.

#### TRANSNET (including access to COEs)

TRANSNET is an unclassified restricted access site available via the internet. The aim of the NATO TRANSNET Portal is to foster collaboration and create an internet accessible forum for Communities of Interest (COI) to come together and share knowledge and expertise. Access to TRANSNET is for individuals from NATO, NATO nations, MOD/DOD, NATO Partners, commercial/industry entities and others that have a standing business case with NATO. The TRANSNET Portal is password protected, so an account must be created. Please follow the steps below to sign up for TRANSNET and request access to the COE COI:

- 1. Go to https://transnetportal.act.nato.int/Pages/home.aspx;
- 2. Click on "Register" and provide your information. Commercial email accounts like Gmail, Yahoo, Hotmail or AOL will not be accepted. Only official military/government/organizational email addresses containing the requestor's name will be accepted. After providing your personal information, at the end please write your justification for asking access to the TRANSNET Portal;
- 3. Once your sign up request is approved by the TRANSNET administrator, login and go to your home page;
- 4. Click on the "Request Community Access" button;
- 5. From the list of available COIs, you can find Centre of Excellence (COE) COI;
- 6. Click on the "Request Access" button;
- 7. In the "COIs Requested" part, find "READ COE" and add it to your wish list. Please provide justification for joining this COI;
- 8. Click on "Save" and your request will be sent to CPD Branch for approval.

Once your request is approved you will be able to view the content in the COE COI, including COE POWs and the RfS Tool.



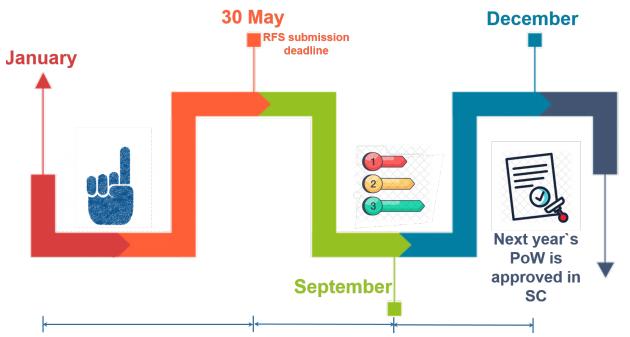
#### **Centres of Excellence Community of Interest**

One of the major advantages of joining the COE COI is that it is intended to be a "one-stop shop" for NATO-accredited COEs. Some of the content includes links to all of the COEs (and their POW if classification permits), key events, contacts, documents, and references. If an organization is considering becoming a NATO-accredited COE, there is a section on the requirements for establishment. One of the greatest benefits, however, is the ability to submit requests for support from NATO-accredited COEs. This resource is found under the "COE POW and RfS Tool" tile.

#### **Requests for Support**

The RfS tool is meant to serve as a constantly available coordination tool between two or more stakeholders. It identifies the requesting organization, the COE(s) requested to support, a high-level description of the request, and associated timeline. Although requests should usually be entered before June for work to be carried out in the subsequent year (based on the COE POW cycle), out-of-cycle requests may be carried out if sufficient capacity/resources exist. Users unfamiliar with the RfS Tool should contact the CPD Branch for assistance, but in general, the following steps are required in order to request support from NATO-accredited COEs:

- 1. The requestor submits the request in the RfS Tool (note: prior discussions with the COE(s) via phone or email can be helpful in determining specific resource requirements and for crafting the request);
- 2. The COE(s) evaluates the request to determine appropriate expertise and available resources;
- 3. COE(s) provide feedback via the RfS Tool response;
- 4. HQ SACT provides validation and prioritization (if required) of the RfS and coordinates with the potentially affected stakeholders;
- 5. The COE SC either accepts or rejects the RfS for the COE POW;
- 6. If the RfS is accepted, the COE POW is updated;
- 7. The COE develops the product, and formally closes the loop with the requestor;
- 8. Once the request is complete, the requestor informs the HQ SACT RfS Manager; the RfS Manager will update the RfS tool accordingly.



#### **Promotional Tools**

The NATO-accredited Centres of Excellence annual catalogue has become one of the most popular vehicles for the promotion of the centres' expertise within NATO bodies as well as among other stakeholders. This success relies on the significant efforts made by the COE community to face current challenges through innovative initiatives that maintain their diverse expertise for the benefit of the Alliance. More specifically, the COVID-19 pandemic has highlighted the requirement and utility of using of online solutions, and has prompted CPD to initiate its own programme of virtual solutions.

The primary objective is to facilitate the understanding of exactly what the NATO COEs are and their value to the Alliance. Further the promotional tools also explain their creation and, most importantly, how their support is requested.

Promotional activities were oriented in three directions:

- Develop a series of simple, but widely accessible, tutorials through CPD's internal SharePoint site for ACT staff, or through the externally available TRANSNET COE Community of interest for all other NATO personnel.
- Create a "COE 101" WEBINAR aiming to explain, in basic terms, what the COEs are and how they might best be used.
- Assist ACT's Communications branch with developing a video animation for posting through ACT's portals, multiple platforms and social media channels.

Further lines of effort will be to revive the ACT e-learning portal part dedicated to the COEs including the related links to COE courses, as well as implementing a trial for adopting/adapting IT tools developed by ACT Innovation Hub (supported by Artificial Intelligence) to innovate the way each COE share and use online their unclassified studies, documents and reports.

#### **CPD Tutorials**

The CPD branch, in collaboration with ACT's Modelling & Simulation and Learning Technologies (MSLT) branch, has developed an initial batch of tutorials that respond to simple frequently asked questions (FAQs), such as "What is a COE?", "How does the idea of creating an accredited Centre of Excellence start?" or "What is the establishment and accreditation process of a COE?"

Those tutorials are aimed at audiences that wish to gain an increased knowledge of the NATO-accredited COEs' missions and activities.

#### **COE** Marketplace

The 2024 edition of the NATO-Accredited Centres of Excellence (COE) Marketplace will take place at NATO HQ in Brussels on May 2024.

Scheduled to take place at NATO HQ every two years, this event aims at highlighting the diverse, but crucial, support that the NATO COEs provide to the Alliance. It provides an opportunity for the National delegations to showcase their contributions made to the Alliance as Sponsoring Nations of the COEs, and for the International Staff and International Military staff based at NATO HQ to meet the COE personnel and recognize, understand and embrace the value of the expertise, support and advice provided by these 29 NATO-accredited COEs. The event also provides an excellent opportunity for the COEs to promote their work and share examples of the products and outputs they deliver to NATO.

#### **ACT Communications branch video animations**

Designed by ACT Communications branch, these animations aims at drawing the COEs "out of the shadow" for some people in NATO various communities of interest and for a wider public audience.

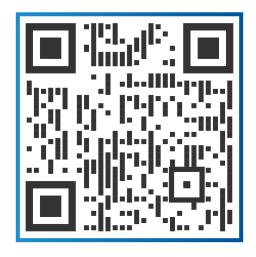
The video animation (2 minutes) is displayed through NATO social networks and can be used by the COEs as an open source for promotion.

#### **COE** e-Learning programme

ACT's Joint Advance Distributed Learning (JADL) site contains an area dedicated to COE-courses hosted by ACT's MSTT branch.

- This area is structured with separate areas where each COE can organize its own subject matter expertise domain. It is the responsibility of each COE to request their own area through the MSTT branch.
- These individual areas provide twin benefits for each COE:
- It provides the Centre the opportunity to reach a large number of potential students within NATO, by providing useful information and contact details.

When provided with a separate area, a COE can request support from the MSTT branch to develop and improve its own JADL competency.







Animation: Catalysts for Change

Video: COE Marketplace 2022

Video: What is a COE?

# CENTRES OF EXCELLENCE UNDERGOING NATO ESTABLISHMENT AND ACCREDITATION

# NATO Climate Change and Security Centre of Excellence (CCASCOE)

The NATO Climate Change and Security Centre of Excellence (CCASCOE) is currently in its establishment phase and will work towards official NATO accreditation in early 2024. Our vision is for CCASCOE to become an internationally recognized hub of expertise for military and civilian practitioners, working cooperatively to expand knowledge and capabilities in the field of climate change and security (CCS) for the benefit of NATO, Allies, partners, and the international community.

CCASCOE's mission will be to: 1. Enhance knowledge and understanding of the ways that climate change will affect the security interests of NATO, NATO Allies and Partners through research, experimentation, doctrine and concept development, education and training, as well as analysis in support of developing lessons learned; 2. Help NATO and Allies to adapt and build resilience to the security impacts of climate change with particular focus on military operations, missions and tasks, including the future operating environment; and 3. Develop and share best practices and expertise to improve operational effectiveness and to reduce the climate and environmental impact of the military and defence sectors, while maintaining operational effectiveness.

CCASCOE will be in Montreal, Quebec, Canada and is currently mobilising resources from Sponsoring Nations, as well as building up its physical and digital infrastructure. The CCASCOE will be structured to maximise cooperation with relevant NATO, Allied and Partner entities, including by being equipped to engage virtually with stakeholders across the globe.

#### NATO AIR OPERATIONS CENTRE OF EXCELLENCE (AO COE) - CASPOA

# **Director's Message**

Located in the very heart of the French Air Force Command and Control for Air Operations, the AO COE benefits from all the synergies with the French National Air Operations Centre and the French JFAC, thus having an always up to date and practical link with current operations. In addition, this seamless dialogue with the Operational Community feeds the four pillars of the Centre.

Relying on a robust network of academics, start-ups and industries, the AO COE continuously reflects on how the emerging and disruptive technologies may enable us to maintain a conceptual, organisational and technological superiority over potential enemies.

Eventually, as a contribution to "Win the War before the War", by integrating more Multi Domain Operations perspectives in the curriculums of our NATO certified and listed courses, the AO COE will continue preparing warfighters in the best possible way.



#### **Mission Statement**

To enhance Air Operations' effectiveness across NATO Command Structure (NCS), NATO Force Structure and with partners, as well as to support development of air operations capabilities, concepts, doctrine and experimentation.

#### Who we are / What we do

The AO COE is a multi-national manned organization which workforce includes highly trained resident officers from the French Air Force, Army and Navy, as well as from Italy, the United States, and Greece. This diverse manpower brings



a very unique and complete – joint and combined - perspective of AO to the Centre and all of its activities. This expertise is also emphasized by the physical location of the Centre, located near the French NAOC, French JFAC, and the French Air Operations Command.

The AO COE provides NATO with excellent primary tactical training, education and expertise in the Air Operations domain, by covering the full-spectrum of NATO's AO discipline through courses listed in NATO's Education and Training Opportunities Catalogue (ETOC), or on the AO COE's website. The Centre also contributes to C2 experimentation in the technical realm, along with concept and doctrine development, thus shaping the future of the AO domain.

#### **Vision**

The deterioration of the international context over the last decade, the complexity and rapid evolution of the World compel us to stay agile and to question and refine on a regular basis the relevance of our processes. When High Intensity is back to the battle space and Multi Domain Operations (MDO) are the new norm, this questioning becomes vital.

Following on from the heritage of the aviation pioneers, the AO COE has been always putting significant efforts in monitoring emerging disruptive technologies and analysing doctrines and lessons learned to adapt education and training accordingly.



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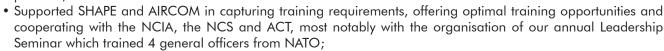


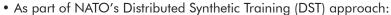




#### Major products and activities in 2023

- Delivered over 38 training events and welcomed roughly 740 students;
- Contributed to future Air C2 systems development, test and evaluation;
- Continued collaborating with the NATO Scientific Technology Organisation (STO) through membership in the NMSG;
- Provided guidance for the Allied Command Operations Joint Targeting community both as an SME and training provider;





- » contributed to Spartan Warrior with the visit of the AO COE's director and a small team during the DV day to observe the activities;
- » participated to Spartan Warrior (3 SMEs) to share their expertise with the NATO community, and to train them further;
- » participated to the development of Force Integration Training Objective (FITO) (NATO catalogue of training objectives);
- Contributed to NATO exercises, notably Steadfast Jupiter 2023 (2 SMEs);
- Deepened our relationship with the AOTC and EPRC, by exchanging SMEs and sharing expertise;
- Welcomed a Greek liaison officer in the AO COE's team;
- Actively worked on NATO doctrine by being a member of the writing team of the AJP-5;
- Took part to the Coalition Interoperability Assurance Validation (CIAV) air operations breakout (WG) as support service lead (1 SME), within the Federated Mission Network (FMN).

#### Major products and activities in 2024

- Energize our website and external communications;
- Materialize through official agreements our relationship with the AOTC and the DACCC, and renew the agreement
  with the EPRC. The AO COE will also explore new potential partnerships with other nations as well as other NATO
  entities;
- Keep on delivering training events and welcoming students from NATO Nations;
- Continue collaborating with the NATO STO through membership in the NMSG;
- Host and organize the Annual Discipline Conference (ADC), in link with the Global Programming;
- Experiment with and assess the impact of Multi-Domain Operational thinking on the current Air C2 paradigm;
- Provide guidance to the Allied Command Operations Joint Targeting community both as an SME and training provider;
- Continue to support SHAPE and AIRCOM in capturing training requirements, offering optimal training opportunities
  and cooperating with the NCIA, the NCS and ACT. This support will materialize with the deployment on site of an
  AO COE team to train and advise an Iraqi Air Operation Centre (MATT);
- Continue with the project IC2ARE to encourage a paradigm of thought in terms of innovation within Air Operations;
- Continue our contribution to NATO exercises (METT Fast JTS, LOLE 23);
- Continue our involvement with DST meetings;
- Continue working and being part of the AJP-5 writing team;
- Continue our involvement with the FMN CIAV;
- Continue our participation to the development of FITO.



# CIVIL-MILITARY COOPERATION CENTRE OF EXCELLENCE

# Director's Message

In times of rising global challenges and growing competition, NATO recognizes that a comprehensive approach is necessary for a credible deterrence and defence mission as well as a contribution to international crisis management of the Alliance. A military joint function that integrates the understanding of the civil factors of the operating environment and that enables, facilitates and conducts Civil-Military Interaction to support the accomplishment of missions and military strategic objectives in peacetime, crisis and conflict is CIMIC. In order to support the CIMIC transformational, educational and operational requests of the NATO Strategic Commands, the CCOE Sponsoring Nations, NATO Customers, and other customers, the CCOE's fundamental and enduring purpose remains to provide up-to-date and relevant Subject Matter Expertise in the field of CIMIC.

# Colonel (GS)

Colonel (GS) Andreas ECKEL

## **Mission Statement**

The CCOE provides Subject Matter Expertise in NATO Civil-Military Cooperation (CIMIC) to support the transformational and operational requests of the NATO Command Structure, Sponsoring Nations, and other customers.



## Who we are / What we do

The CCOE was recognized as a NATO accredited Centre of Excellence, now located in The Hague, the Netherlands. The CCOE is the recognised asset to assure NATO Nations' and Partners' access to up-to-date knowledge and expertise in the field of CIMIC and to promote NATO's role in the area of transformation and innovation to external audiences. The CCOE is NATO Department Head for CIMIC, and a NATO accredited Education & Training Facility. Based on the NATO EU joint declarations regarding intensifying cooperation, the CCOE became the European

Union Discipline Leader (EU DL) for CIMIC, providing a comparable coordinating function for EU like as DH for NATO, and a member of the European Security Defence College in 2020. CCOE's program of work, coordinated and consistent with NATO efforts, is guided by 1. Education and Training, 2. Lessons Learned and Analysis 3. Concept Development and Experimentation, and 4. Doctrine Development and Standards.

#### **Vision**

The CCOE acts as the recognised hub of knowledge and expertise in CIMIC and as a unique platform for cooperation and partnership. Therefore the CCOE is the preferred network campus to connect people, share collective knowledge and gain unity of purpose in the field of Civil-Military Cooperation.



#### 2023 / 2024

#### **Education and Training**

The Training and Education Branch (T&E) functions as the COE's accredited education & training facility (ETF) for Civil-Military Cooperation (CIMIC). It uniquely combines expertise with training and education. The T&E Branch contributes effectively to CCOE's effort as a Department Head for the CIMIC Discipline regarding Education, Training, Exercises

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and Evaluation (ETEE) and Discipline Leader (DL) for the EU CIMIC. Those settings facilitate the immediate alignment of CIMIC courses and training solutions to NATO's training requirements, taking into account the current operational environment and security challenges. In 2024, the T&E will continue to align training solutions and address mutual challenges with related disciplines like: Military Contribution to Peace Support (MC2PS), Gender (NCGM) and Military Contribution to Building Integrity (MC2BI). Furthermore, the CCOE T&E Branch will keep providing trainings to US Civil Affairs (CA) units and personnel in order to promote interoperability and effectively synchronize US CA and NATO CIMIC. CCOE T&E is capable to deploy CIMIC Mobile Training Teams (MTT) and provide tailored trainings' solutions answering NATO and NATO partners' requests to train personnel on tactical or operational level in the CIMIC area of expertise.



#### **Lessons Learned & Analysis**

CCOE's Lessons Learned & Analysis (LL&A) Branch intends to support the CIMIC Community of Interest by providing observations and lessons which foster capability improvement and thus contribute to the future development of CIMIC and enable transformation:

- Collection of CIMIC-related observations in the real-world environment with focus on their impact on CIMIC training and doctrines;
- Collection of CIMIC-related observations in NATO, EU and national exercises;
- Cooperation with JALLC and COE LL Community of Interest;
- Support revision of CCOE's course landscape;
- Support revision process of CIMIC-related doctrines;
- Support to capability development of CIMIC Analysis & Assessment and Joint CIMIC;
- Provide CIMIC SME to Federated Mission Networking CIMIC Meeting and NATO SHIPPING Working Group;

#### **Concept Development and Experimentation**

The CCOE supports the continuously evolving, adapting and innovating joint function CIMIC, including academic studies and the development of concepts development, processes, doctrine and documents. Actual topics include:

- CIMIC Analysis & Assessment capability (SHAPE J9 Strategic Initiative 5);
- NATO Warfighting Capstone Concept and Warfare Development Agenda-related products and deliverables (including but not limited to: Multi Domain Operations, EDT).



#### **Doctrine Development and Standards**

The CCOE is the custodian for AJP 3.19 ALLIED JOINT DOCTRINE FOR CIVIL-MILITARY COOPERATION with its promulgation as a point of main effort in 2024 and works to ensure the appropriate reflection of CIMIC aspects in related doctrine and publications. The CCOE edits a range of publications, including academic books, as well as practical materials such as the CIMIC Handbook, Makes-Sense booklets, and fact/info sheets. Within the "US Civil Affairs Euro-NATO CIMIC Synchronization project", the CCOE works closely together with US Civil Affairs entities across Europe and the USA. The CCOE ensures that CIMIC-related aspects are appropriately included in NATO Cross-Cutting and emerging topics, as well as in CIMIC-related products. For 2024 we expect a further dynamic in the field of interoperability between NATO and its partners and the conceptualization of NATO's Multi- Domain Operations.

#### **CCOE Events 2024**

- Annual Discipline Conference (ADC): 05-07 June 2024
- CIMIC Community of Interest (COI) Conference 2024
- Coordinating Committee 05 06 NOV 2024

# CENTRE OF EXCELLENCE COLD WEATHER OPERATIONS (COE-CWO)

# **Director's Message**

Throughout history the Cold Weather Environment has hampered, and even halted, large military formations, as can be seen during wintertime in the ongoing conflict in Ukraine. The current changes in the geo-political situation and climate-change comes with a greater interest and security-concerns in areas of the world where Cold Weather Capability is needed. The ability to mitigate risks and exploit opportunities that follows the surrounding freezing environment is of outmost importance in order to be Cold Weather Capable and succeed in given tasks. It all starts with the ability to understand, at all levels of command, how the everchanging Cold Weather Environment affects own unit(s), the oppressor and the civilian community in the aspects of people, equipment and terrain, and subsequently the joint functions.

The Centre of Excellence for Cold Weather Operations will support the Alliance building this understanding and will continuously search for new and innovative ways to develop the Alliance's ability to conduct warfighting in the more extreme parts of the world.



#### **Mission Statement**

COE-CWO will strengthen the Alliance's ability to conduct military operations in Cold Weather Environments by serving as the principal advisor to SACT within all pillars of the COE program. The COE will provide development, training and education within all domains and command levels. Together with HQ SACT and Allied Nations, COE-CWO will identify and develop what is demanded in order to contribute to the Alliance's transformation.



## Who we are / What we do

Situated on NATO's northern flank in Norway, the Centre has deep knowledge and experience from operating under harsh winter conditions. We are network based and output focused.

We share our experience to the best of the Alliance, through offering education and training opportunities, doctrine and concept development work, and through sharing lessons identified and best practice.

In order to provide the best available support to the Alliance, the Centre draws on resources from its network organization.

Additionally, our Community of Interest comprises nations and organizations that bring in valuable perspectives and relevant competence, making our source of knowledge comprehensive and multinational.

#### **Vision**

To become the recognised expert for NATO's Transformation in the field of CWO, the COE-CWO will utilise its expertise on CWO in the whole spectrum of the Alliances on-going and possible future operations. It will support education, training and exercises related to cold weather and winter conditions. It will generate competence by means of a well-developed network of military and civilian as well as national and international competence-units and organisations, in order to continuously improve and be updated on all CWO related



knowledge and developments. It will test and validate ideas, equipment and concepts through experimentation, where the COE will use either the COE's own experiments or other entities' experiments to gain knowledge.





Centre of Excellence Cold Weather Operations delivers recognised experience and expertise within all four pillars of COE development. In order to fill the role as the preferred hub of competence within CWO for the Alliance, and to establish a foundation for further development, COE-CWO has in 2023 prioritised two main projects: a land tactical publication and an operational level concept about CWO. Still, substantial work has been done within building a CWO-LL Operating procedures and a significant amount of sub-tactical courses is conducted to the benefit of the Alliance.



With ATP-3.2.1.5 ratification and final approval

of the Alliance Concept for Cold Weather Operations, COE-CWO, the Alliance and its member- and partner nations will have two "handrails" for further development of CWO capability. Through the A&LL process there is identified substantial gaps in how the alliance synchronise and adapts to cold weather capabilities and there is a need to work for more interoperability. With Finland in NATO, and Sweden soon to be, almost all nations within the cold regions in NATO AOR is a member-nation. The current geopolitical situation underlines the importance of working together to close these identified gaps and building Cold Weather Capability across the nations and forces that will need it in case of escalation. COE-CWO hosted the Cold Weather Operations Conference (CWOC) 2023, this was a paramount milestone in order to bring together the CWO Community of Interest to discuss why, how and what regarding CWO capability, and is already looking forward to the third CWOC in 2025.

In 2024 the COE-CWO will finalise the Alliance Concept for Cold Weather Operations through a validation experiment on Ex STEADFAST DEFENDER part 1 / NORDIC RESPONSE 24. The Cold Weather Operations Community of interest can expect more Cold Weather Operations Webinars in 2024. In 2023, more than 1000 attendees listened



in on five different themed live webinars. The COE-CWO will deliver more information-sharing of relevant research and development done by the network organization and community of interest. Moreover, the COE-CWO seeks to support the tactical and operational headquarters in NATO Command Structure with relevant support to build Cold Weather Competence.

Lastly, the COE-CWO offer a multitude of courses to the Alliance, the course catalogue for 23/24 can be found at COE-CWO website.

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# COMBINED JOINT OPERATIONS FROM THE SEA CENTRE OF EXCELLENCE (CJOS COE)

# **Director's Message**

CJOS is the NATO COE devoted solely to helping develop Alliance combined joint warfare capability from the sea, providing foresight and analysis on operational matters. Based in the US, and aligned with JFC Norfolk and US SECOND Fleet under my command, CJOS is dedicated to driving forward the Alliance's warfare development agenda, in turn supporting the delivery of deterrence and defense in all domains from the maritime. 2024's ambitious Programme of Work has been designed to focus on deepening our understanding of our competitors, supporting Multi Domain integration, seeking new concepts to exploit innovative technologies, and taking practical steps to help foster interoperability amongst Allied forces. Everything we do is aimed to help our Sponsoring Nations and those NATO commands we support, with a focus on delivering practical output that improves capability. If you have a challenge that you think we could help with, we want to hear from you.



#### **Mission Statement**

To support the Sponsoring Nations (SNs) and NATO in improving their ability to conduct Allied combined joint operations from the sea in order to counter current and emerging maritime global security challenges.

## Who we are / What we do

CJOS COE is a small but dynamic and well-connected COE based in Norfolk, Virginia (U.S.A), that provides a maritime focus for Alliance warfare development, acts as a conceptual trans-Atlantic bridge for the Alliance Maritime Enterprise, drives maritime interoperability and integration, and supports the four pillars of NATO transformation. The Centre draws on knowledge and capabilities of Sponsoring Nations, Allied Command Transformation (ACT), U.S. SECOND Fleet, Joint Force Command Norfolk, along with other neighbouring U.S. commands, to drive maritime warfare development.

#### **Vision**

Working closely with partners and stakeholders from international militaries, governments, non-governmental agencies, industry, and academic communities of interest, CJOS COE aims to be the Alliance's source of expertise in the conduct of combined and joint operations in the maritime environment.



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The CJOS Programme of Work is a result of deliberate and wide ranging engagement with those we serve – whether that is ACT, JFC Norfolk, MARCOM, our Nations, or indeed anyone else who needs our support. At its core it is aligned with NATO thinking, to ensure that CJOS can play its part in helping drive forward towards the headmarks set by strategic direction such as the DDA and Warfare Development Agenda. Drawing on a continuity of approach maintained over the past few years, the Programme of Work it is built along five Lines of Effort:

# 1. Cognitive Superiority; Understanding Challenges and Competitors in the Maritime:

- Produce the annual magazine "Cutting the Bow Wave", providing wide-reaching articles and information pertaining to combined and joint operations with a maritime focus.
- Research and analyse Arctic operations, including addressing C4ISR challenges and cold weather impacts.

#### 2. Force Development; Driving Interoperability, Integration:

- Chair, participate, and contribute to a variety of doctrine and lesson learned working groups advancing NATO's capabilities in the maritime environment to adaptably interoperate forces and resources.
- Stewardship of the Allied Interoperability and Integration Guide.
- Support exercises CJOS provides maritime subject matter experts to US and multinational exercises including Ex STEADFAST JUPITER and DEFENDER.
- Contribute directly to progressing NATO's communication systems, with real-time command and control challenges.
- Provide maritime expertise to the IAMD community.
- Chair the MAROPS Working Group.

#### 3. Multi-Domain Operations:

- Bring together stakeholders to address key challenges, and thereby improve collective maritime security.
- Investigate AI, autonomous vehicles and computing to enhance maritime ISR.

#### 4. Innovation; Development of Innovative and Disruptive Technologies:

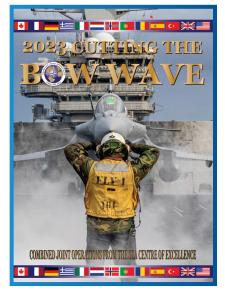
- Chair "Working Package E" of the ASW Barrier Smart Defence Initiative.
- Provide doctrine, policy, research studies and exercise analyses of Manned-Unmanned technologies in multiple areas of warfare, including maritime warfare and joint operations.

#### 5. Support the Alliance's Development and Integration of Amphibious Capabilities:

- Continue to be a chief contributor to the NATO Amphibious Leaders activities, developing and operationalizing a multinational amphibious task force in support of NATO.
- Participate in multiple working groups, focusing on integration issues and the NATO Amphibious Task Force concept.

Within these Lines of Effort, CJOS COE projects span across all activities within the NATO pillars: Education & Training, Analysis & Lessons Learned, Concept Development & Experimentation, and Doctrine Development & Standards.

In Spring 2024, CJOS will also deliver the 3rd edition of the Future Maritime Warfare Symposium (FMWS). This flagship event aims to bring together key leaders and thinkers in the maritime to consider challenges and opportunities, and increase our collective understanding of our maritime context.





# COMMAND AND CONTROL CENTRE OF EXCELLENCE (NATO C2COE)

# **Director's Message**

NATO is at the verge of a huge transformation within the whole of the alliance and it's all about Command and Control. The transition from joint to multi-domain requires military decision makers to orchestrate across operational domains and synchronize with civil entities. At the same time technology enables a data centric approach, Al support and global seamless connectivity. It requires many changes in the way we C2 in the Alliance. The NATO C2COE supports NATO in this with the C2 implications of MDO as part of the development of the cross domain command concept, with the elements of change for future operational HQs and with education and training on MDO C2 for current and future leaders. The NATO C2COE is based on networks of international experts to bring research, experimentation, evaluation and analysis. It provides a possibility for allies and partners to strengthen their own C2 and align it with NATO.



**GROENEVELD** 

## **Mission Statement**

We support NATO transformation, nations and international institutions/organizations with subject matter expertise on Command and Control. C2 at the operational level is our primary interest, with a focus on C2 processes and structures (including connectivity), Information and Knowledge Management and Human Factors (including leadership).



#### Who we are / What we do

The NATO C2COE is a multinational organization designed to permanently focus on specific areas of C2, primarily at the operational level. These three specific areas are:

- C2 processes and structures (including connectivity);
- Information and knowledge management (IM and KM);
- Human factors including leadership.

By concentrating purely on these C2 aspects, the NATO C2COE is unique; no other NATO related organization focuses exclusively on the overarching joint function C2. It gains its expertise by assessing and evaluating C2 aspects during missions, exercises and experiments.

These assessments and insights from the real world on all aspects of C2 in a joint, interagency and combined environment are the basis for further analysis and peer-to-peer discussions. The final results support concept development and experimentation, doctrine and policy development, education and training, and requirements definition.

#### **Vision**

NATO C2COE catalyses C2 by capturing, creating, assessing and distributing C2 knowledge. The joint and multinational capacity of NATO C2COE and its partners will lead to robust and applicable knowledge.

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The NATO Command and Control Centre of Excellence (NATO C2COE) is a multi-nationally, accredited international military institution which offers expertise and experience for the benefit of the Alliance and its member nations.

The NATO C2COE, as a team of multinational experts, is to provide decision-makers effective solutions and tangible products on operational level C2, in order to safeguard NATO and the members Nations' interests.

We bring together NATO Allies and partners working alongside the alliance as force multiplier and hub of knowledge.



In 2023, the NATO C2COE continued its work to create clarity on the term Multi-Domain Operations (MDO) and the MDO C2 concept. In 2024, efforts on the MDO topic will persist through several projects led by ACT and the NATO C2COE.

Numerous presentations at well-attended events, organized by either the Netherlands, NATO, or industry, were delivered. The NATO C2COE engaged in discussions about Multi-Domain Operations and the impact of Command and Control during the DSEI Conference in London, United Kingdom, leading to fruitful discussions about current capabilities and future challenges. We elaborated on this topic as well during our hosted COE Director Conference in September.

Two studies on the "Future of the Command Post" examined the attitude of current leadership towards automated decision-making support and explored the impact of technological developments on future staff work. The MDO C2 Demonstrator (MDOC2D) project raised awareness among senior national and NATO leadership about the potential of currently available or emerging technology to support commanders in the Military Decision Making Process (DMP). In 2023, these efforts continued with the initiation of follow-up projects in collaboration with civilian partners, which will be finalized in the upcoming year(s).

The Centre established connections with numerous NATO Senior Mentors in 2023 to gather knowledge and insights. The NATO Senior Mentor Programme consists of former Flag or General Officers, recommended by their respective Chiefs of Defence to the Supreme Allied Commander Europe (SACEUR), to support NATO commanders and



commands as they train and prepare for operations. This also led to the creation of the 'NATO Senior Mentors Podcast,' which is now accessible via your favourite podcasting app.

In 2023, the NATO C2COE continued its role as Department Head for the Operations Planning, Operations Assessment, and Alternative Analysis Discipline within Global Programming to coordinate and improve NATO's education and training (E&T) in these fields. This culminated in the organization and leadership of the Third Annual Discipline Conference. To professionalize E&T solutions/products, a temporary E&T section was established last year and extended for the upcoming years. This relatively new section will continue to capture the Centre's applicable knowledge on C2 in the years to come leading towards the 'Pilot C2 course' as first milestone.

The NATO C2COE organized its well-received, in-house developed C2 seminar with the title "The future of NATO decision-making: How to out-fight, think, pace, last, excel, and partner with our adversaries." The seminar aimed to inform and challenge participants about the arguments and theory surrounding Decision Making and multi-domain C2 (MDC2) by providing the latest insights and perspectives on C2 in a layered operating environment. To achieve this, the NATO C2COE invited a range of experts from academia and across the Alliance to share their viewpoints on various aspects, illustrating its increased relevance while providing the initial framework for C2 in the not-too-distant future battlefield.

# CENTRE OF EXCELLENCE FOR OPERATIONS IN CONFINED AND SHALLOW WATERS

(COE CSW)

# Director's Message

The importance of confined and shallow waters (CSW) to global security and economy-related processes remains high. Influencing almost all areas of global life, transportation, trade, food supply chains and more, these waters are permeated by a tight web of intense interdependencies and competing interests, and characterized by a high density of human activities, critical infrastructure, and difficult environmental conditions. In consequence, a wide range of factors influence and complicate any maritime endeavour, be it of civilian or military nature.

Working on the resulting challenges, COE CSW supports NATO mission achievement and interoperability, utilising knowledge gained through the plethora of our projects. Our work ranges from warfare capability development, training and operational maritime law discussions through to informing strategic decision making.

Times remain demanding in the maritime domain, and I am determined to continue our respective focussed support to NATO with my team in 2024.



Rear Admiral Helge Sascha RACKWITZ

#### **Mission Statement**

The COE CSW mission is to provide joint and combined subject matter expertise in the range of operations in CSW in order to support the Alliance, our participating nations and other customers thus contributing to NATO transformation and enhancing the interoperability amongst the allies and partners.



## Who we are / What we do

The COE CSW was established in 2007 and accredited by NATO in 2009. Drawing upon navies' experiences in confined and shallow waters operations, bringing together this unique expertise from different nations and thus creating synergy in a relevant field of competence is an excellent way to advance NATO's transformational efforts in areas such as the unique and extremely demanding operational environment of CSW. Our multinational team of subject matter experts covers the pertinent warfare areas and supports NATO in the entire COE work spectrum to support transformation in general, and warfare capability development in particular.

#### **Vision**

As the very hub of knowledge, the COE CSW is recognised as an essential provider of competence and a tangible supporter to the Alliance, the participating nations, and other customers.

We are an indispensable element of NATO Transformation by generating synergies and sharing best practices in a multinational environment.

We are playing the key role in advancing the joint and combined understanding of specific challenges related to operations in CSW, as well as in driving forward the development of high standard warfare capabilities and skills.

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Working in a range of NATO Working Groups, partly in leading positions, e.g. the Maritime Operations WG (MAROPS WG), the Allied Joint Operational Doctrine WG (AJOD WG), Force Protection WG (FP WG); Counter-Improvised Explosive Devices Working Group (C-IED WG), NATO Electronic Warfare WG (NEWWG), Amphibious Operations Working Group (AMPHIBOPS WG), Naval Mine Warfare Working Group (NMWWG), NATO Joint Capability Group Unmanned Aerial Systems (JCGUAS), NATO Counter-Unmanned Aircraft Systems WG (C-UAS WG); acting as official liaison between AJOD WG and MAROPS WG;



- Promoting global Maritime Security by organising side events within the Munich Security Conference (MSC) and through related project work;
- Contributing to ACT's Smart Defence Initiative (SD 1.1271) Deployable ASW Barrier Operations;
- Supporting the implementation of NATO Maritime Synthetic Collective Training, incl. the implementation exercise DYNAMIC MIRAGE (2024);
- Advocating the crucial role of the Electro Magnetic Spectrum (EMS) in maritime operations, supporting MARCOM and custodians in developing respective publications and fostering experimentation, education and training;
- Supporting the NATO Maritime Unmanned Systems (MUS) Initiative as part of the Staff Advisory Groups (SAG) inside the Steering Board;
- Co-Sponsoring the NATO's Industrial Advisory Group (NIAG) study on "Industrial perspective on NATO's military

digital underwater communications capability and new fields of applications";

- Offering a computer-assisted wargaming capability to train maritime staffs at the tactical level and to support concept- and warfare development in an analytical context;
- Supporting the series of Robotic Experimentation and Prototyping Exercise augmented by Maritime Unmanned Systems (REPMUS) and the Dynamic Messenger series;
- Fostering a common understanding and the development of Operational Maritime Law, e.g. by our annual "Conference on Operational Maritime Law".





#### COOPERATIVE CYBER DEFENCE CENTRE OF EXCELLENCE (CCDCOE)



# Director's Message

The NATO Cooperative Cyber Defence Centre of Excellence brings together 39 nations with shared values and similar needs. Its members believe that cooperation can enhance their capability to carry out cyber operations. The main areas, where shared experiences are especially valuable, are related to common frameworks for multidomain and combined operations, civilian-military coordination, and public-private partnerships. The NATO CCDCOE has four flagship projects: premier multidisciplinary conference on cyber conflict – CyCon, the biggest defensive live-fire exercise – Locked Shields, and the technical red-teaming cyber exercise – Crossed Swords, which all take place annually. Currently in progress is Tallinn Manual 3.0 – the foremost guide how international law applies to cyber operations. As a NATO accredited educational facility, the Centre provides the Alliance with cyber related education and training.



#### **Mission Statement**

Our mission is to enhance the cooperative cyber defence capability of NATO and its partners in order to support NATO's military transformation, the Sponsoring Nations (SN), Contributing Participants (CP), and other Customers, thus improving the Alliance's interoperability and cooperative cyber defence.



# Who we are / What we do

The NATO CCDCOE provides its stakeholders with timely and relevant products and services, which support the stakeholders in development of their capability to conduct cyberspace activities both individually and collectively in line with UN article 51 and North Atlantic Treaty article 5. The development of support products and services are based on stakeholder needs and requirements. Specifically, we offer a unique interdisciplinary approach to the most relevant issues in cyber defence with our research, trainings and exercises. The NATO CCDCOE engages in international cyber cooperation, conducting large-scale cyber conferencing and cyber exercises.

#### **Vision**

By providing relevant and timely products and services to NATO and the NATO CCDCOE's Member Nations, the Centre is an internationally recognized organisation and preferred partner for cyber capability development and cooperation.



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In 2023, the NATO CCDCOE celebrated its 15th anniversary. To commemorate this historic event, the Centre welcomed four new members in the spring: Iceland, Ireland, Japan and Ukraine. The Centre is proud to now host 39 Member Nations.

This year's Locked Shields was the biggest yet with approximately 3000 participants and the largest number of nations – 38 nations in total advancing the training audience's knowledge and experience with defending different systems including critical infrastructure. The next iteration of Crossed Swords, a unique red-teaming exercise brings together almost 30 nations and hosts a

well-developed scenario for practicing active defence and testing out cooperation between the Cyber Headquarters and offensive cyber unit.

At the 15th edition of the premier conference on cyber conflict, CyCon, with the theme "Meeting Reality" featured over 90 speakers from government, defence, academia, and industry and approximately 650 participants. There were 11 plenary sessions, 14 parallel sessions, 10 workshops, and hundreds of bilateral meeting. Conference proceedings with 24 peer-reviewed papers were selected from hundreds of abstracts submitted from all over the world.

Researchers at the NATO CCDCOE have been busy producing over a dozen different pieces of original research spanning topics from enhancing cybersecurity of industrial control systems, to an escalation roadmap after malicious

cyber-incidents or -attacks, to the most recent insidious Russian proposal on cybercrime at the UN.

The NATO CCDCOE is committed to continuously improving our training courses in order to address the changing needs of the ever-developing cybersecurity field and meet the requirements of our Allies, Partners, and NATO as a whole. The Centre provides courses in different formats and locations, covering a broad range of topics in the technical, legal, strategic and operational cyber security domains. This year the Centre conducted 19 iterations of 13 different residential courses for almost 500 students, 7 mobile courses for almost 150 students, and 16 online courses for over 7000 students.



# NATO COUNTER-IMPROVISED EXPLOSIVE DEVICES CENTRE OF EXCELLENCE (C-IED COE)

# **Director's Message**

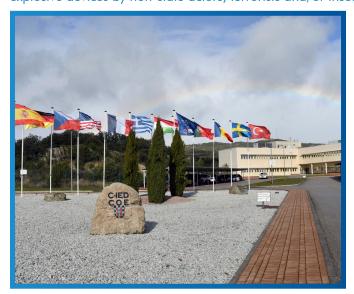
Improvised Explosive Devices continue to be the main cause of violent casualties in the world. The type of missions in which there are NATO troops deployed give the false impression that IEDs are less harmful for our troops and/or our societies than they were in past years. As my predecessor in the C-IED COE Director's position used to say, "IEDs have gone to stay". C-IED COE will continue providing C-IED support to NATO and Sponsoring Nations on a daily basis, setting the main focus of the C-IED COE activities in 2024. The Center will continue with the institutionalization of C-IED within the International community through analysis and studies of current scenarios and operational areas, while supporting NATO priorities in C-IED training, concept development, and capacity building.

#### **Mission Statement**

To provide subject matter expertise in order to support the International Community system and to co-operate to increase the security of Allied Nations and all troops operations by reducing or eliminating the threat posed by the use of improvised explosive devices by non-state actors, terrorists and/or insurgents networks.



Colonel
Javier
CORBACHO MARGALLO



# Who we are / What we do

The C-IED COE is the accepted venue for all C-IED issues within NATO's area of interest. The C-IED CoE is organized into three pillars: Attack the Network, Defeat the Device and Prepare the Force, and has a staff of over 60 people, of which more than 40 are subject matter experts in the field of C-IED.



#### **Vision**

Our vision is to use a comprehensive and synergistic interagency approach fusing support from military personnel, law enforcement, police, the intelligence community as well as civilians from academia, and the research and technology industry to defeat both terrorist and insurgent networks that use IEDs as well as the device itself.

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# Capeco

#### 2023 / 2024

#### Support to Concepts, Doctrine and Standardization Development

- Custodianship for STANAG 2294, STANAG 2295
- Support to the NATO Technical Exploitation Concept development and the NATO Technical Exploitation Group
- Support Partner Nations in their C-IED doctrine development process
- Support to NATO Defense Against Terrorism Program of Work (DAT POW)
- Support the NATO Warfighting Capstone Concept
- Support the NATO C-UAS POW under Air and Missile Defense Committee
- Support to NATO Human Network Analysis in support of Targeting (HNAT) development
- Support the NATO Intelligence Community, led by NATO HQ JISD, with doctrinal and concept developments
- Contribute to NATO Science & Technology Organization activities in Cognitive Warfare, NATO Industrial Advisory Group NIAG, NATO Concept for Cognitive Warfare.



#### **Support to Lessons Learned and Analysis Activities**

- Act as C-IED Community of Interest content manager on NATO Lessons Learned Portal (NLLP)
- Maintain and improve C-IED Lessons Learned process and conduct a Lessons Learned workshop.
- Supervise the "out-of-the-theatre C-IED Lessons Learned process" and incorporate results of TTP analysis and LL in NATO training activities/solutions.
- Conduct technical and intelligence analysis in support of C-IED Community of Interest.
- Conduct a C-IED Interagency Workshop.

#### Support to Technologies, Experiments and Information Management

- Assess technological developments to defeat the IED system.
- Analyze current and emerging IED trends to identify potential solutions.
- Support C-IED enablers' concept of employment development and technical exploitation.
- Provide technical advice on explosive threat and C-IED technologies.
- Support NATO initiatives and work strands (RTO SCI 243, SCI 233, SCI 256).
- Collaborate with other organizations in R&D projects as industries and university: PRINSE project (Protection of infrastructures), BLADE project (Blast protective Walls using absorbing devices), SAFEDRONE project (detection of buried IEDs), AKHENATON project (research on light materials and design solutions to obtain an enhanced and light protective modular coating to be used in military vehicles), 3D project (3D-models on IEDs to create a database framework).
- Develop and maintain a C-IED Equipment Database.
- Conduct a Technology Workshop.
- Continue supporting the development of the Technical Exploitation in Water Environment area.
- Support to Education & Individual Training
- Department Head for C-IED training within NATO.
- Develop, conduct and support courses in collaboration with NATO and other organizations.
- · Promote the use of the approved standardized C-IED Common Training Model (CCTM) for partner training.
- Organize C-IED courses in support for partners (Defense Capacity Building activities and C-IED related Mobile Training and Advisory Teams.
- Conduct Senior Leadership Seminars and/or Engagement (SLS & SLE) for NATO.
- Develop Advanced Distributed Learning (ADL) tools in support of C-IED and courses.
- Support development electronic Military Training and Exercise Program (E-MTEP), support and maintain Education & Training Opportunities Catalogue (ETOC) and Partnership Real-time Information, Management and Exchange System (ePRIME).
- Be the reference body for the training and education subject matter experts (SME's) for C-IED related activities.

# NATO COUNTER INTELLIGENCE CENTRE OF EXCELLENCE (NATO CI COE)

# **Director's Message**

Russia's brutal aggression in Ukraine definitively ended a period of relative peace, showing no one is safe from the ambitions of the former Soviet Empire. This breakthrough moment in world security demands adequate answers. By adopting a new strategic concept at the Madrid Summit in 2022, NATO showed it is ready for new challenges in this area. We are witnessing the return to a classic rivalry of powers where military threats, including the nuclear threat, come to the fore. Efficient and effective counter-intelligence is an important first line of defence in this context. Countering intelligence threats is an ongoing process during both peace and war. Although counter-intelligence is mainly a national domain, NATO as an Alliance must also act effectively in this field. The NATO Counter Intelligence (CI) Centre of Excellence (COE) was established for this purpose.

The NATO CI COE is a key element in the Alliance's efforts to degrade destructive activities of hostile intelligence services. It is a force multiplier for the CI efforts of NATO operations, exercises, policies, concepts, and strategies.



#### **Mission Statement**

The mission of the NATO Counter Intelligence Centre of Excellence is to expand the capabilities of the Alliance and its Member States by providing comprehensive expertise in the field of counter-intelligence.



## Who we are / What we do

The NATO Counter Intelligence Centre of Excellence (CI COE) has a rich history that began in 2015 with its establishment under the Paris Protocol. The North Atlantic Council granted the Centre accreditation two years later, making it a NATO-accredited Centre of Excellence. The Centre benefits from having two framework nations, Poland and Slovakia. This bilateral structure provides a recently expanded headquarters in Krakow, Poland, and a multifunctional facility at the Military Training Center in Lest, Slovakia.

The NATO CI COE continuously hones and expands its offerings to meet member nations' needs, reflecting the Alliance's

commitment to operating skillfully in this critical area. While CI is primarily a national responsibility outside of contingencies, the CI COE reflects the Alliance's commitment to providing valuable resources and support to the

entire NATO CI Community. The Centre's experts work tirelessly to ensure the safety and effectiveness of NATO-led operations in an ever-changing and complex environment.

#### **Vision**

The vision of the NATO CI COE is to act as a catalyst for NATO adaption and operations by supporting the development, promotion, and implementation of new policies, concepts, strategies, and doctrine that transform and enhance NATO counter-intelligence capabilities and interoperability.



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The CI COE consistently executes all four pillars of NATO's Centre of Excellence programme.

#### **Education and Training.**

The NATO CI COE conducts advanced in-residence NATO CI training courses in both Poland and Slovakia. It also conducts Mobile Education and Training Team (METT) events and seminars based on NATO Nation's requests. The Centre cooperates with other intelligence-related COEs, and NATO CI entities to develop solutions to new challenges. It also conducts predeployment seminars for the Front Line Forces (FLF) at NATO's eastern flank. The Centre provides leadership, professional



expertise, and training throughout the NATO CI exercise STEADFAST INTEREST. The NATO CI COE received Allied Command Transformation Quality Assurance (QA) accreditation and is a NATO-approved education and training facility. In 2023, the CI COE was formally appointed Department Head for CI Education and Training.

#### The Doctrine Development & Standardization.

The NATO CI COE maintains two major CI-related NATO publications: AJP-2.2 Counter-intelligence and Security and AIntP-19 Counter-intelligence Tactics, Techniques, and Procedures. These documents are the essential doctrinal foundation for planning and conducting counter-intelligence activities in NATO-led operations in a complex and fluctuating operating environment. The Centre also contributes significantly to the whole-of-NATO doctrinal effort by providing comments, suggestions, assessments, compliance solutions, and expert knowledge to other NATO policies, doctrines, and procedures within the counter-intelligence field of expertise. The NATO CI COE maintains strong relationships with other complementary disciplines, including Security, Force Protection, Human Intelligence (HUMINT), etc., to ensure consistency and coherence amongst doctrinal principles.



#### **Analysis & Lessons Learned.**

A core Centre function is enhancing NATO and National CI lessons learned (LL) capabilities and multinational interoperability by exchanging information, best practices, and analytical products. The NATO CI COE provides CI expertise to courses and exercises and advises on NATO member requests for support. The Centre designs, develops, and delivers tailored training opportunities to enhance the knowledge and skills of NATO personnel in analysis and LL. The Centre also provides a repository for International, National, and NATO-shared CI information, analysis, and LL in cooperation with the Joint Analysis and Lessons Learned Centre (JALLC). The wider NATO audience can benefit from a NATO CI COE online course on basic counter-intelligence and security principles hosted by JALLC.

#### **Concept Development & Experimentation.**

Traditional methods by which CI operators execute their tasks require integrating with the latest technological innovations or organizational adaptation. One of NATO CI COE's main Concept Development and Experimentation (CD&E) tasks is to explore, conceptualize, and experiment solutions to meet those requirements. In addition to recommending and supporting the implementation of solutions identified through the CD&E process in CI-related doctrine, standards, and procedures, the NATO CI COE is also coordinates national and multinational efforts in the CD&E area. This improves CI capabilities while saving resources and avoiding duplications. The CD&E Branch constantly conceptualizes and developing a wide range of CI-related products and services for NATO, its member Nations, and other customers to improve and support NATO CI interoperability and capability as part of the overall NATO transformation process.

# NATO CRISIS MANAGEMENT AND DISASTER RESPONSE CENTRE OF EXCELLENCE (CMDR COE)

# **Director's Message**

As an integral part of the extensive network of NATO Centres of Excellence, the CMDR COE takes pride in its role in supporting the Alliance's ongoing transformation and adaptation. We serve as a central hub of expertise, facilitating the exchange of information, knowledge, and best practices within the Crisis Management and Disaster Response (CMDR) domain. The CMDR domain's intricate nature demands a profound understanding of the present circumstances and a forward-looking vision for the future. In this complex security landscape, collaboration emerges as the cornerstone of success. The CMDR COE is committed to fostering constructive partnerships and nurturing the continuously expanding CMDR community of interest. Our objective is to create an environment conducive to collaborative and collective approaches in CMDR. We firmly believe in the inclusive, transformative, and innovative potential of such an approach.



Colonel Orlin NIKOLOV, Ph.D.

#### Mission Statement

With a keen awareness of the prevailing security landscape and its associated imperatives, our central goal is to serve as a driving force for the improvement of capabilities in Crisis Management and Disaster Response (CMDR) operations for NATO, NATO member nations, and our partners. We place utmost emphasis on the principles of the Comprehensive Approach and the development of productive collaborative partnerships.



# Who we are / What we do

The CMDR COE's central focus lies within the realm of crisis management and disaster response (CMDR). In addition to this primary domain, we maintain a wide-ranging thematic portfolio that encompasses vital cross-cutting topics. These include building integrity, fostering resilience, addressing climate change, safeguarding civilians, and promoting gender mainstreaming.

While we do not operate in a field capacity, the CMDR COE plays a pivotal role by offering specialized research and analysis, tailored educational and training programs for high-level experts (both strategic and operational), support for concept development and experimentation, contribution to doctrine and

standardization efforts, and the dissemination of lessons learned. Our commitment to staying at the forefront of technological advancements is evident through the presence of a fully equipped operational laboratory, boasting significant testing and validation capabilities.

#### Vision

The Center is committed to maintaining its status as a globally acknowledged and deeply esteemed institution, delivering educational and training offerings with added value, conducting research and analysis, offering strategic policy insights, and providing guidance through concept experimentation and doctrine development.



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In light of today's complex security landscape, we underscore the significance of fostering innovative critical thinking and cultivating close collaboration between governmental (both civilian and military) and nongovernmental organizations. Furthermore, we are strong proponents of ongoing transformation within the CMDR domain. To champion these values, we have co-organized and executed events in collaboration with our steadfast partners. The Center's partnerships with international organizations, government agencies, and local authorities have been significantly bolstered through our involvement in disaster modelling and simulation exercises, support for drone-based initial surveillance activities, and contributions



to decision-making processes in workshops and joint training endeavors.

As a result, CMDR COE offers a diverse range of educational offerings, including an annual conference, numerous training opportunities and exercises, workshops, and seminars. In response to the growing demand for remote communication and education, we have successfully transitioned to conducting our scheduled courses online and in hybrid formats.

Our Center has not only successfully executed our ambitious 2023 Programme of Work but is also in the process of shaping an even more dynamic PoW for the upcoming year. Furthermore, we are continuously enhancing our Internship Programme while adhering to strict prevention and control protocols. We firmly believe that the addition of skilled and highly motivated young professionals to our team will play a pivotal role in effectively addressing contemporary challenges and facilitating the transfer of knowledge across generations. It is with great pride that we announce the introduction of a stipend for selected interns joining our team.

Another key aspect of the CMDR COE thematic portfolio is represented by our Operation Laboratory, which plays a significant role in our daily activities, by providing capabilities and services at the operational and tactical levels. The MSG-187 Space Weather Environmental Modelling Workshop represents another opportunity for implementing Al in the analysis of the possible correlation between Space and the events, which occur on Earth. A new MSG-221 M&S in support of Building Resilience and Management of People Mass Movement was also launched. Our active participation in these projects demonstrates our ambition to develop capabilities related to the newest technologies on the market. The CMDR COE OpsLab encompasses both software and hardware development and adheres to specific regulations and procedures for its utilization and maintenance. Presently, it aids in the Center's daily operations and has the potential to enhance capabilities and it is aligned with the Center's primary strategic goals.



Recognizing the complexities of the current security environment and the growing imperative for active collaboration, innovation, and adaptability, we are elated to report that, despite the considerable challenges of 2023 within the CMDR domain, we remained united and responded effectively to this new crisis paradigm. In doing so, we have fulfilled our mission of transforming multiple security challenges into opportunities for a brighter future.

# NATO CENTRE OF EXCELLENCE DEFENCE AGAINST TERRORISM

(COE-DAT)

# Director's Message

The Centre of Excellence Defense Against Terrorism (COE-DAT) remains committed to its vital mission of providing key decision makers with a comprehensive understanding of Terrorism and Counter Terrorism in order to support NATO's and Partners' transformation to meet future security challenges. Terrorism remains a persistent and evolving threat to NATO and our partners, demanding collective vigilance and innovative solutions. COE-DAT is proud to serve as a hub for exchange of knowledge, collaboration, and the development of strategies in the fight against terrorism. In this ever-shifting landscape of global challenges, we recognize that terrorism continues to transform, presenting us with new complexities and dangers. It is imperative that our response evolves in parallel; therefore, we need active participation and collaboration. Understanding how other countries perceive and fight terrorism, as well as the context in which terrorism emerges, will produce new and comprehensive ideas for combating, preventing, and responding to terror. I encourage you to take part in numerous COE-DAT-sponsored and hosted events and activities on Counter Terrorism. Through our thought-provoking events, research initiatives, and products, we can deepen our understanding of the evolving dynamics surrounding terrorism



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and craft proactive responses that outpace the adaptability of those who seek to disrupt peace and stability.



#### **Mission Statement**

COE-DAT provides key decision-makers with a comprehensive understanding to Terrorism and Counter Terrorism challenges, in order to support NATO's and Nations of interest transformation to meet future security challenges. This transformation is embedded into NATO's three declared core tasks of deterrence and defence, crisis prevention and management, and cooperative security.

# Who we are / What we do

COE-DAT is a NATO accredited multi-national sponsored entity currently comprised of eight NATO nations (Albania, Germany, Hungary, Italy, Romania, Türkiye, the United Kingdom, and the United States). COE-DAT is NATO's hub for Counter Terrorism (CT) expertise, a status that explicitly flows from its unique role as an independent organization outside the NATO Command Structure, which empowers COE-DAT to interact with universities, think tanks, researchers, international organizations, global partners, and other COEs in a massive community of interest. Based on the broad swath of CT-focused knowledge, created through deliberate interaction and collaboration with the Centre's wide-reaching network, the COE-DAT is able to provide subject-matter expertise and advice to NATO and Allies on all Defence Against Terrorism (DAT)/CT matters and support NATO's Long Term Military Transformation efforts.

#### Vision

An internationally recognized and respected resource for Defence Against Terrorism expertise for NATO, the hub of a wide network of international military, government, non-government, industry and academic communities of interest.

#### 2023 / 2024

#### **2023 Major Contributions**

2023 was a productive year for COE-DAT across all four COE pillars. Below is just a small sampling of our major contributions. We invite you to visit www.coedat.nato.int for access to publications associated with our completed workshops, conferences, seminars, and many other projects.

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- Overall conducted 13 Defence Against Terrorism (DAT)-related activities with 591 participants from 65 countries, engaging 120 military and academic lecturers for significant contributions to the COI's understanding of terrorism and possible paths to eradicating it;
  - Conducted METT event in Kuwait on Defence Against Suicide Attacks;
  - Planned and conducted annual Terrorism Expert Conference (TEC) on 18-19 October specifically tailored to NATO's and SNs' needs. Outcomes from these conferences sparked COE-DAT research projects tailored to support emerging NATO DAT requirements;
  - Developed, planned, and conducted the DAT Executive Level Seminar to raise the awareness of current DAT/CT trends among senior Alliance and Partner Nation leadership.
- Sustained NATO "Approved" certification for 12 courses, including the certification of two new courses: Basic Critical Infrastructure Security and Resilience Against Terrorist Attack and Advanced Critical Infrastructure Security and Resilience Against Terrorist Attack;
- In response to NATO's CT Action Plan and "Collective Training and Exercise Directive 075-003," began a two-year collaboration with Başkent University and NATO Modelling and Simulation COE on the development of a first-of-its-kind CT exercise tool, a strategic-level simulator capable of training the next generation of security specialists. This simulator will support courses and workshop/seminar events across COE-DAT's entire portfolio, as well as serve as the foundational basis for a new, comprehensive DAT/CT course intended to deliver hands-on, multi-domain application of DAT/CT concepts in a complex virtual

## 2024 Major Work Items

environment.

#### **Department Head for Counter-terrorism**

- Training Needs Analysis Workshop 25 January 2024
- COE-DAT Long Range Planning Conference (Online) 14 March 2024
- Annual CT Discipline Conference 18-19 April 2024
- Terrorism Experts Conference and Defence Against Terrorism (Executive Level) Seminar 16-17 October 2024
- Climate Change and Terrorism Book Project (year long)
- Terrorism Simulation Exercise (year long)

#### **Education & Training**

#### Courses:

- Defence Against Terrorism NATO-approved course 4-8 March 2024
- CT/Attack the Network NATO-approved course (Online) 1-5 April 2024
- Basic Critical Infrastructure Security and Resilience Against Terrorist Attacks NATO-approved course 20-24 May 2024
- Fighting the Financial Dimensions of Terrorism NATO-approved course 10-14 June 2024
- Terrorist Use of Cyber Space in General Terms NATO-approved course (Online) 16-20 September 2024
- Advanced Critical Infrastructure Security and Resilience Against Terrorist Attacks NATO-approved course 18-22 November 2024
- Efficient CM to Mitigate the Effects of Terrorist Activities NATO-approved course 2-6 December 2024 Mobile Education Training Team Course:
- Boznia-Herzegovina Advanced Critical Infrastructure Security and Resilience Against Terrorist Attacks NATOapproved course 2<sup>nd</sup> Qtr. 2024

#### **Transformation (Concept and Doctrine Development)**

- Multidomain Operations Project (with SACT-CT Branch) 2<sup>nd</sup> Qtr. 2024
- Defence Against Terrorism Review (DATR) e-journal

#### **Knowledge (Analysis and Lessons Learned)**

- World Border Security Congress Workshop 24-25 April 2024
- Russia-Ukraine Conflict Impacts on Terrorism Project (year long)
- Artificial Intelligence & Terrorism Project (year long)

The complete event and course calendar can be found at our website www.coedat.nato.int



# NATO ENERGY SECURITY CENTRE OF EXCELLENCE (NATO ENSEC COE)

# **Director's Message**

The NATO ENSEC COE is recognized hub of knowledge and expertise in Energy Security for the benefits of the Allies, Partner Nations and the NATO bodies in three main domains: awareness of energy developments with security implications for NATO; improving the energy efficiency of NATO military forces through proposing common standards, reducing dependence of fossil fuels, and demonstrating energyefficiency solutions for the military. NATO's capacity to support national authorities in protecting critical energy infrastructure, as well as enhancing their resilience against energy supply distributions that could affect national and collective defence, including hybrid and cyber threats.

## **Mission Statement**

The mission of the ENSEC COE is to support NATO, Nations and Partners to meet the challenges of a dynamic energy security environment by addressing resilience, operational energy efficiency, and critical energy infrastructure protection.



Colonel Darius **UZKURAITIS** 



## Who we are / What we do

We, the NATO ENSEC COE, are a widely recognized international military organization that strives to provide qualified and appropriate expert advice on questions related to operational energy security. We offer technical, scientific and academic subject matter expertise on energy security that contributes to: risk assessment analyses; energy wise secure solutions for the development of environmentally friendly and efficient military capabilities; developing the Smart Defence Initiative; and Supports NATO Operations through targeted technical scientific assessment.

## Vision

NATO ENSEC COE must be the recognized hub of knowledge and expertise in Energy Security for the benefit of the Alliance and the Nations in the following three domains: awareness of energy developments with security implications for NATO; improving the energy efficiency of NATO military forces through and demonstrating energyefficient solutions for the military; enhancing resilience against energy supply disruptions that could affect national and collective defence, including hybrid and industrial cyber threats.



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#### NATO CONCEPT AND DOCTRINE DEVELOPMENT & EXPERIMENTATION

- Leading the development and experimentation of NATO's Operational Energy Concept (OEC) with the aim of having a final version in 2024:
  - » The NATO OEC Proposal Document has been prepared and approved by the NATO SACT in March 2023,
  - » The 3rd International OEC WT meeting was organized and held in Portugal in April 2023,
  - **»** Organization and leadership of the NATO OEC experimental activities within the NATO exercise Steadfast Jupiter in October 2023.
- Contributing to the development of the NATO Layered Resilience Concept;
- Contribute to the development and refinement of NATO policies, doctrines, standards and procedures related to energy security;
- Hydrogen Fuel Cell experiment, to analyze the tactical energy currents within a mobile logistical military unit and to develop scenarios, where the experimental technology might apply its advantages for military missions.

#### **EXERCISES**

- Table Top Exercise on Hybrid Threats to Critical Energy Infrastructure "Coherent Resilience 2022" Georgia;
- Table Top Exercise on Hybrid Threats to CEPS in light of Cyber Concerns "Coherent Resilience 2022" France;
- Table Top Exercise on Hybrid Threats to Critical Energy Infrastructure "Coherent Resilience 2023" Qatar;
- Table Top Exercise on Maritime Critical Energy Infrastructure Protection "Coherent Resilience 2023" Baltic.

#### **TRAINING**

- Maritime Security Courses and Trainings in MARSEC COE İstanbul, Turkiye;
- SHAPE Mil Strategic Partnership Conference Doha, Qatar.

#### **COURSES**

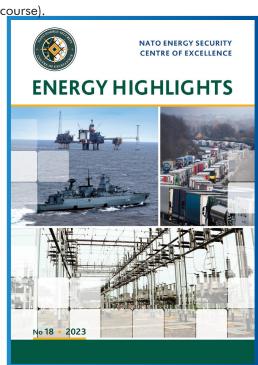
- Baltic Defence College Operational Level Energy Security Course;
- Energy Efficiency in Military Operations Course in cooperation with NPS;
- Energy Security Strategic Awareness Course in NSO;
- Energy Security Awareness Course in Turkish PfP Training Centre;
- CEI Protection and Resilience Course Poland in cooperation with NPS & NSO;
- Introduction to Energy Security (ADL course);
- Introduction to the NATO Energy Security Centre of Excellence (ADL course).

#### STUDIES, RESEARCH, ANALYSIS

- Energy supply developments for military mobility until 2050 using synthetic and carbon free fuels;
- Climate change consequences on NATO and partner nations' energy policies and technological developments;
- Renewable energy sources available for military forces' energy transition;
- Preliminary technical analysis of the establishment of Information Security Operations Centers in companies with critical energy infrastructure.

#### STRATEGIC ANALYSIS

- Strategic Analysis and Awareness Raising on Energy Security Issues;
- Strategic Foresight Analysis Framework for Future Alliance Operations with a focus on different (regional) perspectives (Y +10/20);
- ACT Long-Term Military Strategic Shaping Working Group (Y+40);
- Biannual International Seminar or Workshop on Energy Security;
- Research and/or Analysis Studies related to Energy Security Issues.







# NATO EXPLOSIVE ORDNANCE DISPOSAL CENTRE OF EXCELLENCE (EOD COE)

# **Director's Message**

The year 2023 brought a challenge in the form of the 7th iteration of NATO EOD Demonstrations and Trials, as well as the sad 1st anniversary of the war in Ukraine. Malfunctioned munitions and explosive remnants of war in this conflict are everyday threats to forces and civilian population. This is also why we strive to constantly improve and develop EOD education, training, and our effort to support standardization. Another significant change was replacing the Director of the EOD COE, and I am determined to continue the excellent work of my predecessor.

## **Mission Statement**

The EOD COE mission is to support and enhance the NATO transformation and operational efforts in the field of EOD.

## Who we are / What we do

The EOD COE is a distinguished authority in the specialized field of EOD. It offers operational and transformational knowledge to NATO, Sponsoring Nations, and

other military and civilian institutions. We have a strong and professional reputation for influencing across the NATO

MILENG and EOD domains and a more comprehensive range of NATO programs. Our primary customer is NATO, and we make valuable contributions to warfare development in areas such as doctrine development and experimentation, education, training, exercises, and lessons learned.

## Vision

To be NATO's catalyst for improvement and transformation of EOD.





Colonel

**František** MIHALOVIČ



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#### 2023

- Upgrade of EOD/IEDD Equipment Catalogue to give access to producers to facilitate their products;
- Organize and conduct the 7th iteration of the NATO EOD Demonstrations and Trials on 11-12 October 2023 in Bratislava;
- Compilation of the "EOD COE's considerations for future EOD development";
- Test and evaluate the first phase of the EOD/IEDD VR/ XR Training and Combat Support Kit;
- Promulgation of the new version AJP-3.18 (Allied Joint Doctrine for EOD Support of Operations);
- Contribute to Working Groups and conferences related to EOD COI;
- Participate in the developing of publications related to the AJP-3.18 (ATP-3.18.1, AJP-3.15);
- Development of a study related to the EO threat within the Ukrainian war;
- Participation in the study of the use of Artificial Intelligence (AI) within EOD Col;
- Contribute to EOD related CT&E Northern Challenge, Steadfast Jupiter;
- Deliver six iterations of the selected E⁢
- Contribute to EOD related CT&E Northern Challenge, Steadfast Jupiter;
- Deliver six iterations of the selected E⁢
- Update of the EOD doctrine course on the Joint ADL portal.

#### 2024

- Revision of EOD COE Strategic Vision, Strategic Plan and Communication Plan;
- Organize and conduct the 10th iteration of the NATO EOD COE Workshop on November 2024 in Šamorín, Slovakia;
- Contribution to working groups, conferences, seminars and other events connected with EOD Col.;
- Support to the NATO Defence Planning Process (NDPP);
- Support to the validation of AJP-3.18 (B), Allied Joint Doctrine for EOD Support to Operations;
- Participation in the revisions of NATO publications related to EOD area of expertise (e.g. MILENG, C-IED, JCBRN Defence, Force Protection);
- Continue with the development of the Former Warsaw Pact Ammunition Handbook (Volume 5);
- Continue with the development of the study related to EO threats in UKR conflict;
- Continue participation in the study of Artificial Intelligence (AI) utilization within EOD Col.;
- Update the EOD Lessons Learned database;
- Contribute to EOD-related CT&E Northern Challenge, Ardent Defender;
- Deliver seven iterations of the selected E⁢
- Update of the EOD doctrine course on the Joint ADL portal.







## NATO HUMAN INTELLIGENCE CENTRE OF EXCELLENCE



# **Director's Message**

Fully aware of the multitude of challenges that the Alliance has to manage, and understanding its need for support in these endeavours, the NATO HUMINT Centre of Excellence (HUMINT COE) has adopted a pro-active posture, by adjusting its efforts towards making NATO HUMINT relevant, and adapting its overall activities to integrate emerging requirements.

The HUMINT COE keeps NATO HUMINT up-to-date with the latest trends by analysing lessons learned and identifying best practices, continuously revising HUMINT standards, and offering a consistent educational portfolio to NATO Nations and organizations.

Capitalizing on the agility provided by its status, the HUMINT COE seeks to enlarge its network of Academia and Industry partners, by developing joint research projects with prestigious academic institutions that provide expertise in the areas of HUMINT development and adaptation.

The HUMINT COE remains devoted to its core principle - striving for excellence in all its activities in support of NATO, and maintaining a steadfast commitment to the highest quality services and products for the benefit of the Alliance.



Colonel Iulian **BARBU** 

## Mission Statement

HUMINT COE provides the highest quality services and products in response to the requirements and needs of NATO Command Structure, NATO Force Structure, NATO Nations and, when feasible, Partner Nations.

## Who we are / What we do

HUMINT COE is an agile and resilient International Military Organization, providing quality support to NATO. Acting as a hub of HUMINT expertise, the Centre permanently seeks to enhance the HUMINT capability in NATO, in conjunction with stakeholders and various communities of interest within the NATO HUMINT Enterprise. HUMINT COE chairs the NATO HUMINT working groups, acts as custodian for HUMINT doctrines, conducts research and development projects and manages HUMINT Lessons Learned and Best Practices. In the area of Education and Training, the Centre is appointed as Department Head for HUMINT and delivers a large portfolio of certified courses as a NATO accredited Education and Training Facility.



## Vision

HUMINT COE drives the transformation of the HUMINT capability in NATO based on lessons learned and best practices, coupled with integration of scientific research and modern technologies, innovative standards and effective, quality-based education and training, in order to keep Human Intelligence relevant in NATO and better answer the evolving operational environment requirements and challenges.

## 2023 / 2024

- HUMINT COE has accomplished all major objectives established for 2023, and started planning the projects for 2024, in line with the requests for support formulated by NCS/NFS, and the courses of action identified by the NATO HUMINT Working Groups.
- As custodian for NATO HUMINT standards, HUMINT COE succeeded to revise the HUMINT Tactics, Techniques and Procedures, AIntP-05, the current edition being promulgated in June 2023.

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- Moreover, to increase the interoperability, by establishing a common HUMINT technology baseline within NATO operations, HUMINT COE initiated the development of the NATO HUMINT Operator Ensemble Toolset (NHOET) Standardization Recommendation (STANREC). The STANREC was promulgated in October 2023 and provides HUMINT elements within NCS/NFS the necessary guidance for conducting the full spectrum of HUMINT activities at high standards, using the tools proposed by the NHOET.
- HUMINT COE is the author of several handbooks and studies that support HUMINT activities at all levels. In 2023, HUMINT COE developed the Debriefing Handbook, whose publication is planned for Q3 2024. The purpose of the manual is to provide a baseline



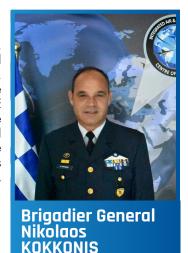
- reference that can be used in support of the HUMINT COE Debriefing Course as well as HUMINT activities.
- Concept Development & Experimentation pillar is addressed by HUMINT COE through its contribution to the NATO
  HUMINT adaptation efforts, by working on concepts and studies that aim to integrate emerging technologies
  (artificial intelligence) and the latest research in the field of human sciences (psychology) into the continuous
  development of the HUMINT capability.
- HUMINT COE acts as Department Head (DH) for HUMINT, with tangible results in the HUMINT E&T curricula
  development. The HUMINT COE individual education and training program contributes to the Alliance's needs for
  permanent development and preparation of a resilient HUMINT capability, able to cope with the challenges of the
  modern warfare.
- HUMINT COE E&T courses portfolio includes training solutions covering the entire HUMINT structure and specialized skillsets in eight blended/resident courses - status NATO APPROVED and four online courses - status NATO APPROVED. Two new blended courses will be offered starting 2024.
- HUMINT COE manned the key positions in the NATO HUMINT exercise STEADFAST INTEREST (STIN) 2023 and provided HUMINT SMEs as part of EXCON in support of Joint Exercises STEADFAST JACKAL 2023 (STJA23), and STEADFAST JUPITER 2023 (STJU23).
- HUMINT COE E&T contributed to key leader training, as well as staff and cross-functional awareness, by conducting Mobile Education and Training Team events and seminars.
- In the area of Human Capital Enhancement, the Centre seeks to develop relevant products for the "Right People, Right Skills" focus area in the Warfare Development Agenda. Studies like "Human Capital Enhancement in HUMINT" or "A model for selection activities and professional development in HUMINT" are available for consultation at www. natohcoe.org/nato-humint-coe-studies/, providing outcomes of research and best practices in human resources management in HUMINT.
- HUMINT COE has a proactive relation with Academia and Industry, being involved in various common research
  projects and participating in scientific conferences and
- projects and participating in scientific conferences and workshops. The HUMINT Boot Camp organised by our institution is a proof of openness toward innovative ideas, based on interaction with "young disruptors" in various fields of experience. The Boot Camp series proceedings are available at: www.natohcoe.org/humint-boot-camp\_open/.
- As manager of HUMINT Lessons Learned database on NATO LL Portal, HUMINT COE actively supports sharing, staffing and disseminating Lessons Identified, Lessons Learned and Best Practices to all NATO HUMINT stakeholders. Also, HUMINT COE leads the HUMINT Lessons Learned and Best Practices Community of Interest, a forum of analyses and discussions aiming to improve the HUMINT capabilities performances in NATO Operations.



# INTEGRATED AIR AND MISSILE DEFENCE CENTRE OF EXCELLENCE

# **Director's Message**

IAMD COE became the 27th NATO-accredited COE on the 21st of January 21. In spite of being a relatively young organization, IAMD COE benefits NATO and Nations in its grea of expertise. The year 2023 has been very fruitful for the Centre. At the beginning of the year, we welcomed France as a new Sponsoring Nation, we successfully accomplished major achievements such as the 2nd Annual IAMD COE Conference in Chania, we executed our first Surface Based Air & Missile Defence (SBAMD) Common Education & Training Program (CET-P) course, and we performed the first Periodic Assessment since its accreditation, with a positive outcome. The Centre moved forward in all the focus areas that deals with, while all products and services provided by the IAMD COE remain consistent with the quality, standards, practices, and procedures within NATO.



## **Mission Statement**

To enhance the interoperability and support the development and exploitation of IAMD capabilities of NATO, NATO Nations, and Partner Nations, based on modern requirements and a smart defence / multinational solutions mind-set; to provide opportunities for comprehensive research, experimentation, doctrine, and concept development, education and training, and comprehensive analysis in support of the lessons learned process.

## Who we are / What we do

IAMD COE is the only NATO-accredited COE dedicated to the field of Integrated Air and Missile Defence. To contribute

to NATO IAMD awareness and expertise, the IAMD COE focuses on, but is not limited to, the following four core pillars of COE's programme:

• Education and Training, • Analysis and Lessons Learned, • Concept Development and Experimentation, • Doctrine Development and Standardization. After the IAMD COE's establishment on 8 Apr 20, the Centre became a member of a wide network of stakeholders, with recognized value and contribution to IAMD. Therefore, the Centre puts great effort into coordinating with other key players. The IAMD COE offers unique services to all IAMD Stakeholders, by utilizing its seven focus areas directly linked to IAMD, as follows:



Offensive/Defensive options in support of Integrated Air and Missile Defence, Passive Air and Missile Defence, Surveillance, Technical and Procedural System Integration,

Counter-Unmanned Aerial Systems (C-UAS), Counter-Rockets, Artillery and Mortars(C-RAM), IAMD's role in Anti-Access/Area Denial (A2/AD).

## Vision

The vision of the Centre is to act as an internationally recognized focal point for knowledge and expertise, which supports NATO transformation and capability development in a cooperative and cost-efficient way, in support of NATO Missions and Tasks, remaining committed to the NATO Alliance's key values and principles.



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2nd Annual Conference, 13 - 14 June 2023, Chania, Cret

**Physical Address** 

Souda Air Base, Building 502 Chania, Crete, Greece





The IAMD COE has achieved several notable accomplishments since its establishment. To number some of them:

- Lead of Surface Based Air and Missile Defence Common Education Training Programme (SBAMD CET-P);
- Successful organisation and execution of annual IAMD COE Conferences which offer a unique opportunity to bring all the IAMD stakeholders in one panel, and share information, ideas, and concerns. In other words, a conference is a way to move from "talk the talk" to "walk the walk";
- Delivery of a review paper report on Hypersonic Weapons to NATO stakeholders, which is a product of cooperation with the Turbo Lab department of the Technical University of Crete (TUC).
   Its aim is to cover the identified capability gap in Hypersonic weapons surveillance and tracking;



- Establishment of the IAMD COE Lessons Learned Community of Interest, which fills the existing gap in NATO;
- Lead the drafting of Chapter 4 (Operational Guidance) of the Counter Unmanned Aerial Systems (C-UAS)
   Doctrine [Standardisation Agreement (STANAG) 2663, Allied Tactical Publication (ATP) 117 Ed. A];
- Support NATO's major live IAMD exercise, Ramstein Legacy (RALY) 22
- During this exercise, the Centre's Subject Matters Experts (SMEs) supported all the planning conferences and the Exercise Control (EXCON) during the execution phase.

The Centre is planning to further implement its vision by:

- Enhancing the Centre's cooperation with all the IAMD Stakeholders in NATO, in the areas including but not limited to: Hypersonic related work/studies, Contribution to C-UAS Modelling & Simulation (M&S) activities and Multi-Domain Operations (MDO).
- Providing continues support to Alliance's Training needs in the area of NATO TTPs of SBAMD through residential SBAMD CET-P Courses and MTTs. The Centre is planning to combine its training activities with CAOCs to train Surface to Air Missile Controllers (SAMCOs) and Surface to Air and Missile (SAM) Allocators;
- Maintaining and enhancing the cooperation with Academia and Industry. In this regard, following the delivery
  of the review paper report on Hypersonics on 19 Dec 22, the Centre is willing to enhance knowledge on
  Countering Hypersonic weapons, through a new study to be delivered by the end of 2023, to support NATO;
- Continue to organise and conduct annual IAMD COE Conferences;
- Enhancing its contribution to the Situational Understanding (SU) Thematic Working Group (TWG) Concept, part
  of the Layered Resilience Concept, in support of the Hellenic Armed Forces, chair of the SU TWG,
- Providing support to the Alliance in terms of Doctrines and Standards (STANAG 3805-3700, AAP 47);



- Maintaining and enhancing the IAMD LL COI;
- Attracting other NATO Nations to support the Centre with their participation as SNs, by: Constructing new premises, to cover all the upcoming needs of the Centre; Developing a modeling and simulation laboratory, capable of supporting experimentation, analysis, testing, and development of exercises and simulation scenarios, to support and improve education and training for IAMD; Providing space for in-house training activities for IAMD COE Staff and students, ensuring adequate access to NATO Secret Wide Area Network; Promoting and utilizing the Centre's proximity with other military installations (NAMFI, NMIOTC, etc).

# JOINT AIR POWER COMPETENCE CENTRE OF EXCELLENCE

# Director's Message

The Joint Air Power Competence Centre provides world-class subject matter experts across a wide range of Joint Air & Space mission areas. As they have for the past almost 19 years, the JAPCC continues to lead NATO in the development of Concepts & Doctrine, Capability Development, Education & Training, Exercise Development & Execution, and Lessons Learned. The oldest accredited Centre of Excellence fuels innovation, delivers high quality products and is the transformation engine for Air & Space Power.

## **Mission Statement**

The JAPCC, as a team of multinational experts, is to provide key decision makers effective solutions on Air and Space Power challenges, in order to safeguard NATO and the Nations' interests.

General James B. HECKER

## Who we are / What we do

The JAPCC is NATO's Air and Space Power Think Tank, supporting both NATO HQs and all Allies and Partners. The JAPCC features a variety of experienced Subject Matter Experts from all services. With every task, their combined knowledge and experience contributes to NATO's relevance, readiness, and future capability. They conduct collaborative research by leveraging their independent thoughts and a global network of experts across military, academia, and industry. We offer you to profit from this massive knowledge and experience. The JAPCC supports exercises, writes doctrines, and publishes own studies and articles including two professional journals each year. We are responsive to your requests, needs, and interests, simply send us a Request for Support (RfS) via our website.

## Vision

JAPCC to be NATO's catalyst for the improvement and transformation of Joint Air and Space Power, delivering effective solutions through independent thought & analysis.



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The JAPCC delivers a broad menu of products and services in support of NATO Allies, Partners, and Headquarters. Our SMEs represent all services drawn from 14 nations and the JAPCC also leverages an extensive network of experts from industry, academia, and the military. The JAPCC Journal 'Transforming Joint Air and Space Power' as the flagship publication issued twice a year, features senior leaders' perspectives, and incisive articles exploring the future of NATO Air and Space Power. Frequent articles and White Papers, published throughout the year, provide on the spot up-to-date snapshots of current topics.

All publications are also available online on our website, you are more than welcome to have a look.

The JAPCC is also the custodian for multiple doctrines, such as AJP 3.3 Air and Space Operations and other NATO publications such as the MC Policies for Force Protection and SEAD.

The JAPCC also provides a wide variety of direct engagement and support, including exercises such as Ramstein Ambition, Steadfast Jupiter, and Mare Aperto, and internal and external NATO courses. We also provide SME support to external studies, support conferences worldwide with speakers and panellists, and participate in more than 20 NATO working groups (and chair seven).

The JAPCC has embarked on a multi-year effort to study Multi Domain

Operations. We are looking past the buzzwords and examine the process, command relationships, and technology that will enable this evolution. Our work will provide specific observations and actionable solutions for member nations and ACO organizations alike. We look forward to your engagement on this topic—with examples of past challenges and successes, as well as robust discussion of options to streamline decision-making—to deliver truly integrated effects at the speed of relevance.

You are invited to our annual Air and Space Power Conference, usually held in October in Essen, Germany. The conference is hosted by the JAPCC Director and includes keynote and panel discussions with senior military leaders, top academics, and CEOs of major defence firms. Join us next year!

We welcome interaction with our audience as well as engagement by external authors: contact us with your questions, ideas, suggestions, outlines, or

ideas, suggestions, drafts.





# JOINT CHEMICAL, BIOLOGICAL, RADIOLOGICAL AND NUCLEAR DEFENCE CENTRE OF EXCELLENCE (JCBRN DEFENCE COE)

# Director's Message

We face a challenging geopolitical situation that has an impact on the world's security. Continuous Russian aggression in Ukraine proves that increasing technological development provides new challenges and opportunities not only in the CBRN defence area. In order to be ready, flexible, and innovative JCBRN Defence COE needs to monitor and analyse these developments. The latest brutal attacks in Israel may result in a war in the Middle East and we cannot ignore the fact that all these events may lead to the use of weapons of mass destruction or chemical or biological materials. It is vital for the JCBRN Defence COE to continuously develop its capabilities and capacities to support NATO's transformation in the field of CBRN defence.

## **Mission Statement**

The Centre provides advice in all CBRN defence-related areas; develops CBRN defence, concepts doctrines, standards and knowledge to support the improvement of interoperability and capabilities; provides opportunities to enhance education and training; contributes to the lessons learned processes; and within an approved Programme of Work (POW), assists NATO, Sponsoring Nations and Partners in their CBRN defence related efforts including validation through experimentation.



**MARTÍNEK** 

## Who we are / What we do

The Centre combines skills and expertise from more than 70 personnel from fourteen nations in the areas of CBRN concept, doctrine and standards, capabilities development, defence planning, experimentation, education and training, lessons learned, modelling & simulation and operations support; acts as a NATO Department Head for WMD/CBRN defence training and education; and acts as EU Military Training Discipline Leader for WMD CBRND. The Centre forms the core of the NATO CBRN reach back capability providing timely, coordinated, authoritative and detailed technical and scientific support. Particularly, the Centre provides advice on CBRN hazards and defensive countermeasures, drawing upon remote expert sources. In addition, the Centre is expanding outreach efforts beyond a purely military focus to civil-military, EU, other international organizations, academia and industry.

## **Vision**

The JCBRN Defence COE leads institutional and operational efforts to support NATO capability development, mission effectiveness, and interoperability. Through the approved POW, the JCBRN Defence COE strives to promote adaptive and innovative methods for preventing the proliferation of WMD and protecting against CBRN incidents.

## 2023 / 2024

#### 2023

- Organized JCBRN Defence COE Annual Conference focusing on CBRN Defence and Resilience in the light of the current security environment and future challenges;
- Supported the NATO Joint CBRN Defence Capability Development Group (JCBRND-CDG) and its panels by providing the Chairperson of Doctrine and Terminology Panel (DTP) and Training and Education Panel (TEP), Secretary (DTP, TEP, DIMP), and Joint Programme of Work custodian;
- Supported implementation of the NATO Warfighting Capstone Concept (NWCC);
- Provided support to Joint Declarations on EU NATO cooperation (Consortium Member in the EU HORIZON Europe eNOTICE project until its end in August 2023;
- · Continued its cooperation with the Hague University of Applied Science (internship programme);
- Supported the Alliance with recommendations on where to focus on S&T resources in order to improve the Alliance's CBRN defence capabilities against Emerging and Disruptive Technologies (EDT);
- Acted as a NATO Department Head for WMD/CBRN Defence E&T Discipline;
- Acted as EU Military Training Discipline Leader for WMD CBRND;
- Supported ACT SEE in developing Minimum Capability Requirements (MCR) as part of step 2 of the NATO Defence Planning Process (NDPP);





- Supported Middle East and North Africa (MENA) Partners by facilitating CBRN Defence Awareness course;
- Maintained and Enhanced CBRN Reachback, modelling and simulation and operational planning support to exercise, operations and contingency planning;
- Implemented the Technical Arrangement for JCBRN Defence COE reachback support;
- Collected Lessons Learned (LL) material on CBRN defence-related NATO exercises and activities;
- Conducted nine different CBRN Defence Courses in support of NATO members and partner nations;
- Provided CBRN expertise in support of two SHAPE-sponsored and five multinational exercises;
- Hosted the Science &Technology organization (STO), HFM 354 Plenary Meeting on the Study, Design, Building and Deployment of a CBRN XR Training Platform.
- Organized 3rd Scientific Network Annual Meeting;
- Participated in STO Human Factors and Medicine Panel (HFM-P) CBRN Defence related technical activities:
- Cooperated with various industries within COE's professional development sessions.



#### 2024

- Organize JCBRN Defence COE Annual Conference;
- Continue to act as NATO Department Head for WMD/CBRN Defence E&T Discipline;
- Continue to act as EU Military Training Discipline Leader for WMD/CBRN Defence;
- Continue to provide CBRN expertise in support of two SHAPE-sponsored and five multi-national exercises;
- Scheduled 11 WMD/CBRN Defence Courses, four in support of requests from the NATO international staff;
- Continue to provide support to STO HFM 354 Panel, Study, Design, Building and Deployment of a CBRN XR Training Platform;
- Maintain and enhance CBRN reachback, modelling and simulation and operational planning support to exercise, operations and contingency planning;
- Develop horizon scanning and improve information sharing service within NATO CBRN reachback function;
- Support JCBRND-CDG and its panels by providing the Chairperson of DTP and TEP;
- Continue its cooperation with the EU including participation in EU projects, the COE is consortium member of eNOTICE-2 project;
- Continue its cooperation with the Hague University of Applied Science (internship programme);
- Support the Alliance with recommendations as to where to focus on S&T resources in order to improve the Alliance's
- POLICE
- CBRN defence capabilities against Emerging and Disruptive Technologies (EDT);
- Contribute to the revision of CBRN defence requirements, concepts, doctrines, standards, terminology, planning documents and tactical procedures;
- Collect LL material on CBRN-related NATO exercises and activities;
- Continue to participate in STO HFM-P technical activities having an impact on Emerging and Disruptive Technologies (EDTs).

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# MARITIME GEOSPATIAL, METEOROLOGICAL AND OCEANOGRAPHIC CENTRE OF EXCELLENCE (MGEOMETOC COE)

# **Director's Message**

The increasing pace of NATO's activities demands a closer integration of the Geospatial and METOC communities, to speed up the fusion of all environmental knowledge layers into common information and situational awareness systems.

In the maritime domain, this requirement becomes even more critical, particularly in the complex interface between Maritime, Land and Air domains, where dynamic environmental features and conditions bear significant impact on present and future littoral operations.

The MGEOMETOC COE provides an opportunity for NATO, and for Allied Nations, to bridge these gaps and provide coherent/coordinated interaction between Geospatial and METOC communities, fostering the production of common GEOMETOC policy.



**REIS ARENGA** 

## Mission Statement

The MGEOMETOC COE mission is to enhance the transformation efforts in the field of Maritime GEOMETOC to the benefit of the Alliance.

## Who we are / What we do

The MGEOMETOC COE is an independent multi-national body sponsored by Portugal (Framework Nation), Romania, Spain, and Türkiye. The centre is located in Lisbon and based on the expertise of the Portuguese Hydrographic Institute, a Navy body and National State Laboratory, internationally recognised.

Our objectives are to fill existing gaps in NATO's Maritime GEOMETOC and explore the maritime battlefield environment

to optimise the employment of sensors, weapons, targets, logistics, equipment and personnel. This requires close cooperation between NATO and international organisations within agreed frameworks, to transform GEOMETOC capabilities in support of maritime operations and to foster the continued self-development of NATO's Maritime



GEOMETOC COE; all this through results-oriented research, studies, experiments, analysis, education and training, as well as applying lessons learned and best practices.

## Vision

The MGEOMETOC COE vision is to be an internationally recognized hub of expertise, working to expand the capabilities in the field of Maritime GEOMETOC.

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#### **Education and Training**

#### • REAL THAW EXERCISE 24

Support the Portuguese Air Force Real Thaw Exercise 2024.

#### • (REP-MUS 2024)

Participate in the Robotic Experimentation and Prototyping Exercise Augmented by Maritime Unmanned System to offer experimental opportunities to Allied Nations and Partners (industry and academia) to the development of new GEOMETOC technological solutions.

#### SMEs TO EDUCATION & TRAINING

Support HQ SACT with lectures and mentorhip the NATO

GEOSPATIAL Orientation Course (2 editions) and NATO METOC Orientation Course (1 edition).

#### NEPTUNE STRIKE EXERCISES.

METOC support to STRIKFORNATO exercises

#### **Analysis and Lessons Learned**

### Provision of METOC SME support to JALLC

Maintain links with JALLC to input METOC or GEOSPATIAL expertise as needed to support the NATO Lessons Learned process.

### **Concept Development and Experimentation**

#### • CWIX 24

Participate in NATO Coalition Warrior Interoperability Exercise 24 with MGEOMETOC SMEs.



## • LAYERED RESILIENCE CONCEPT

Collaborate with HQ SACT in the Layered Resilience Concept under the NWCC's Warfare Development Imperative for Layered Resilience.

#### FEDERATED MISSION NETWORKING

Lead and coordinate the drafting team METOC focus area of the future NATO Federated Mission Networking and Communication and Information Systems security and interoperability.

#### ATMOSPHERIC DISPERSION MODEL

Test, develop and advise on NetCDF configuration to meet ACO's requirement for the development of a Recognised Environmental Picture (REP) layer delivering radioactive dispersion predictions on nuclear power stations over Ukraine.

#### BLACK SEA DRIFTING MODELS

Improve drift models to assess the risk of drifting mines in the Black Sea. Validation of the models by launching drifting buoys into the Black Sea to simulate drifting mines. The buoys were monitored to track their movement.

#### **Doctrine Development and Standards**

**ATP 32** MGEOMETOC COE has taken the custodianship of the NATO Military Oceanographic and Rapid Environmental Assessment publication for its updating.

#### REP CONCEPT

Contribute to the review of the Recognized Environmental Picture Concept.

- REVISION OF AMETOCP-2 (NATO METEOROLOGICAL SUPPORT MANUAL)
- REVISION OF AMETOCP-3.3 (FILE FORMAT AND METOC DATA)
- REVISION OF AMETOCP-5 (SPACE WEATHER SUPPORT MANUAL)



# MARITIME SECURITY CENTRE OF EXCELLENCE

# **Director's Message**

The vast expanses, easy accessibility, and jurisdictional gaps render the maritime domain exceptionally susceptible to exploitation. Persistent maritime security issues, particularly those impacting the movement of goods and people across the world's oceans, necessitate a multifaceted approach. Effectively countering transnational crimes demands synchronized diplomatic, law enforcement, information-sharing, military, safety, security, and economic endeavors, alongside multinational cooperation and public-private partnerships.

The backbone of the Military Contribution to Maritime Security lies in the seven tasks of Maritime Security Operations (MSO): Supporting Maritime Situational Awareness (MSA), countering terrorism at sea (MCT), contributing to Maritime Security Capacity Building (MSCB), upholding Freedom of Navigation (FoN), engaging in Maritime Interdiction Operations (MIO), combating Weapons of Mass Destruction proliferation, and safeguarding critical infrastructure. These tasks serve as the gravitational center for MARSEC COE Activities.



**Mehmet Cengiz** EKREN

Furthermore, the MARSEC COE expresses its readiness to collaborate with the Global Maritime Community of Interest (GMCOI), showcasing a willingness to engage in collective efforts to enhance maritime security.



## **Mission Statement**

The mission of the Maritime Security Centre of Excellence (MARSEC COE) is to expand the capabilities of NATO and Partner Nations by providing comprehensive, innovative, and timely expertise in the field of Maritime Security Operations (MSO).

# Who we are / What we do

MARSEC COE is a dynamic and well-connected Centre of Excellence based in Istanbul/Türkiye. Its strategic location amongst NRDC-TUR,

National Defence University Campus and co-location with Multinational Joint Warfare Centre and MARCOM OSG SOCCE creates an intellectual and synergetic environment.

Strictly faithful to our motto "Working Together for Maritime Security", we are a multidisciplinary and interagency oriented organization focusing on maritime security. We therefore reach out to other relevant institutions and actively link up with specialists from the military, academia, industry, and governmental / non-governmental organizations. You are more than welcome to bring in your expertise and join this unique global network tailored to our scope of work.

## **Vision**

The vision of the Maritime Security Centre of Excellence (MARSEC COE) is to become an internationally well recognized focal point as well as a comprehensive expertise and knowledge provider in the area of Maritime Security, thus expanding capabilities of NATO and Partner Nations.

## 2023 / 2024

MARSEC COE hosted the Maritime Operations Working Group Meeting (MAROPS WG) in collaboration with NATO Standardisation Office and Turkish Naval Forces Command, facilitating expert discussions on maritime operations. Other notable mentions include hosting visits by YATA International, IMEAK and DEHUKAM signing "Letter of Intent" gareements to enhance collaboration.

The Founding Director of MARSEC COE Captain (N) Sümer KAYSER handed over Directorate to Captain (N) Mehmet Cengiz EKREN with a ceremony held on 21 July 2023.

Noteworthy Moreover, MARSEC COE conducted a collaborative workshop and tabletop exercise aimed at enhancing







Mauritania's maritime security capabilities. This effort, led by our METT, is an integral part of the Mauritania DCB Package under NATO's DCB Initiative.

In February, MARSEC COE held a MCIP WS, and findings reflected onto "Maritime Critical Infrastructure Protection Study Paper", which was published on 12 October 2023.

MARSEC COE successfully organized a Cyber Intelligence in MSO Concept Development Workshop, bringing together 22 participants from academia, CJOS COE, the US Coast Guard, and the Portuguese Navy to advance the collective understanding of this evolving domain.

We organized the 3rd Maritime Security Conference on 14-15 June 2023,

welcoming over 50 participants representing 15 different countries and 33 organizations. This conference provided a platform for sharing knowledge and fostering collaboration in the field of maritime security.

The Centre's signature Maritime Security Exercise Series saw the 2023 iteration (EXER MARSEC-23) focusing on the Gulf of Guinea. It welcomed the participation of NATO Allies, Partners, and elements of Yaoundé Architecture for Maritime Security (YAMS) - Interregional Coordination Centre (ICC), Maritime Security Regional Coordination Centres for Central Africa (CRESMAC) and West Africa (CRESMAO), and several Zonal Multinational Maritime Coordination Centres (MMCC).

"Maritime Counter Terrorism Course" became **"NATO Approved"** on May 5th, 2023. In this regard, MARSEC COE developed Projects and participated in activities in the context of COE Pillars:

#### **Education and Training**

- Maritime Operational Awareness for Joint Operations Course
- NCAGS Course
- Maritime Security Law Course
- Comprehensive Maritime Security Operations Course
- ADL 260 "Introduction to Maritime Security" Course
- Maritime Security Exercise 2023 (EXER MARSEC-23) Main Planning Conference (MPC) & MEL/MIL Strategy WS
- EXER MARSEC-23 Final Coordination Conference (FCC) & MEL/MIL Scripting WS
- EXER MARSEC-23 OPEX
- EXER MARSEC-23 CPX

### **Analysis and Lessons Learned**

 Maritime COEs' Lessons and Observations Analysis Forum (Chair)

#### **Concept Development and Experimentation**

• Concept Development of "Cyber Intelligence in MSO" and "Usage of Maritime Unmanned Systems in MSO" experimentation plan and objectives plan.

#### **Doctrine Development and Standards**

- Support NATO Doctrine Development and Standardisation Process.
- Contribution to ATP 3.8.2
- Contribution to AJP 3.8

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# MILITARY ENGINEERING CENTRE OF EXCELLENCE (MILENG COE)

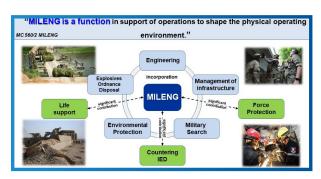
# Director's Message

The Russian attack on Ukraine has had a significant impact on MILENG related topics especially Mobility (e.g. bridging) and Counter Mobility (e.g. barriers). Sitting at the centre of MILENG in NATO, the MILENG COE captured the essential observations from warfighting activities and staffed them into the panels of MILENG WG. This ensures that MILENG community remains current and prepared to support the collective defence for NATO from a MILENG capability. The independent nature of the MILENG COE ensures that the key MILENG gaps are identified and highlighted to the Senior MILENG advisors across the NATO Command and Force Structure. Importantly MILENG COE is supporting the key MILENG activities of addressing Mobility and Counter Mobility opportunities within the Alliance.

## **Mission Statement**

MILENG COE provides NATO and its partners a military engineering knowledge hub through education & training, subject matter expertise and development of policy, concepts, and doctrine to enhance the effective interoperability of military engineering capabilities into NATO operations and exercises. We are committed to building and maintaining a network of partners, experts, and stakeholders in military engineering in support of the Alliance's strategic objectives.





## Who we are / What we do

The MILENG COE's purpose is to provide recognised MILENG expertise and experience to enable the continued development of Sponsoring Nations and Alliance military engineering capability and interoperability.

Our core tasks are:

#### Information Knowledge Management (IKM)

The MILENG COE provides an IKM hub to support the gathering, processing, and dissemination of MILENG related information through a single source of collected knowledge.

#### **Developing Concepts and Doctrine**

The COE assumes a leading role in the development and implementation of concepts, doctrines, and procedures to contribute to the effectiveness of NATO forces through standardization and interoperability.

#### **Analysis and Lessons Learned**

To support NATO LL process with the collection of MILENG related observations, best practices, LI, and LL.

#### **Education and Training (T&E)**

Accredited NATO ETF delivering courses, Mobile Training Teams (MTT), individual training assistance and support to MILENG personnel within NATO Command and Force Structure and Nations.

## **Vision**

A world class organisation that strives to be the driving force behind the advancement of military engineering within NATO's future defence capabilities.



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The MILENG COE holds a unique position in being the heartbeat of the MILENG conscience within NATO. Through delivering the secretariat function to the NATO MILENG WG panels and the NATO Senior Joint Engineer Conference, MILENG COE is perfectly placed to deliver a MILENG knowledge hub across the MILENG Community of Interest. We deliver three Community Updates a year but also share routine updates via our MILENG COE portal – a must visit for anyone in the MILENG arena.



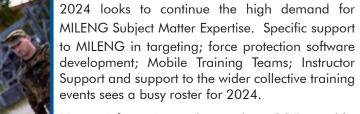
Available on our portal is a MILENG Ukraine

Observations page which provides a great space to pull MILENG observations and analysis – all observations gained from open-source material. The early work of the MILENG WG, underpinned by our secretariat function, has ensured that key capability areas of Mobility and Counter Mobility now sit as High Visibility Projects within the NATO International Staff – addressing these is key to the deterrence and defence of the Alliance.

MILENG COE is custodian of AJP 3.12 and ATP 3.12.1. AJP 3.12 has been assessed during Ex STEADFAST JUPITER 23. ATP 3.12.1 was ratified in July 23. These updates and approvals ensure that MILENG Doctrine remains fit for purpose.

As an accredited NATO Education and Training Facility the MILENG COE has delivered 3 Mobile Training Teams in 2023 and 12 courses at our home location. This has trained 370 students covering MILENG areas from the Tactical to Operational level. The Training and Education branch has also delivered Instructor support to France and Latvia as part of their key deliverables. In addition to this the courses have supported a number of Partner Nations which

has included personnel from the Ukraine.



More information about the COE, public information about our courses and events can be found at www.milengcoe.org

We strongly suggest registering for our portal to get access to more information, workspaces and to register for our courses.

"Interoperability is a question of attitude"



# NATO MILITARY MEDICINE CENTRE OF EXCELLENCE (NATO MILMED COE)

# **Director's Message**

The NATO MILMED COE could successfully adapt and respond to the pandemic and the overall geostrategic situation in the last years, which speaks volumes about the dedication of its Nations and staff members, however, now we are in our proactive phase, processing the lessons of the pandemic and actively collecting the observations from today's battlefields, transforming NATO's medical capabilities via training, doctrine and standards development, experimentation and Force Health Protection initiatives. We are the open door of NATO for everything medical and hope to hear about your initiatives to foster NATO's medical transformation.

## **Mission Statement**

The mission of the NATO MILMED COE is to support and assist the Strategic and all other levels of Commands, other NATO bodies, nations and other civil and military organizations by supporting the transformation of the Alliance and thereby improving medical support to operations and to provide subject matter expertise in the following areas:



Colonel Dr. László FAZEKAS

- Medical training, exercises and evaluation leading to certification
- Medical Lessons Learned and Innovatio
- Standards development and custodianship
- Deployment-related health surveillance

## Who we are / What we do

NATO MILMED COE is a hub of military medical knowledge, building a reliably accessible Community of Interest within its areas of expertise. MILMED COE is an essential part of NATO's transformation efforts by being a medical knowledge centre to the benefit of the entire Alliance. NATO MILMED COE, as a knowledge centre, remains an open institution that links military and civilian medicine together by collecting up-to-date medical knowledge and expertise from both communities, continuing to cooperate with the widest possible range of partners. NATO MILMED COE develops and implements projects to empower

superior and effective medical support services across NATO, during missions abroad and in their home countries. NATO MILMED COE unites highly experienced medical professionals, and it is composed of 5 branches: Support, Training, Lessons Learned and Innovation, Interoperability, Force Health Protection (FHP) Branch – a satellite branch located in a country other than the Framework Nation.

## Vision

Further development of NATO medical support by innovation, experience, creating and sharing best practices. NATO MILMED COE aims to remain a hub of military medical expertise and a focal point of knowledge, providing invaluable training, education and deployment health surveillance capabilities, lessons learned databases and concept development support.



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In the last years, the NATO MILMED COE has successfully pivoted towards capabilities that are more resilient and less prone to interference during a pandemic or when its staff members must work from outside of its facilities. With taking medical innovation as a new priority area, the COE has first transformed itself into an organization that is able to work from anywhere and has a robust technical background to maintain a functional and active subject matter expert (SME) network, and to deliver a considerable amount of its products, such as trainings and professional events, online, offering multiple e-Learning opportunities online or hybrid events. We have laid great emphasis on disease surveillance, delivering a working interim module for near-real-time medical surveillance to supplement NATO's



medical-C4 capabilities. The limitations deriving from the pandemic also prompted us to try out new formats for our exercises, as the Vigorous Warrior Exercise Series (the single dedicated, wide-spectrum, multinational medical exercise in NATO) has been conducted in a live tabletop format, which provided a special and very intensive command staff training for the participants and it has set the perfect tone for the upcoming, 2024 iteration of the original format, for which we would like to invite all NATO and Partner Nations! This exercise also showcases our focus being shifted to the overall geostrategic situation and how NATO's role develops related to it. We believe that the overall quality and the relevant products of the Centre, combined with this proactive stance led to the fact that ACT has found the COE to be aligned with NATO's quality standards and has given us unconditional accreditation as a Centre of Excellence until 2028.





# Director's Message

The NATO MP COE is a unique NATO Military Body that delivers comprehensive and effective contributions to all Military Police (MP) aspects across the full spectrum of NATO operations. As armed forces and civilian organisations are heavily engaged globally, the imperative to train proficient military police officers and non-commissioned officers for multinational cooperation grows. Therefore, the Centre not only offers a range of MP-related courses and events to meet these needs but also produces high-quality resources and provides additional opportunities to deepen the knowledge of the worldwide MP Community of Interest.

## **Mission Statement**

The NATO Military Police Centre of Excellence enhances the capabilities of NATO Military Police (MP), fosters interoperability, and provides subject matter expertise on MP activities in accordance with the Alliance's Strategic Concept.



## Who we are / What we do

The NATO MP COE is an international military organisation that develops and delivers subject matter expertise. In collaboration with other military and civilian entities, the Centre aids in the transition and advancement of MP standards and capabilities. This is to foster cooperation and interoperability among NATO nations, their military police, and gendarmeries, aligning with their role in shaping future capabilities in line with the NATO Strategic Concept across all operations.

While the Centre emphasizes the cooperative facets of MP in support of the NATO Strategic Concept and current or potential operations, its activities are not restricted to these alone. The core areas of focus include:



- Doctrine, Concept Development, and Experimentation;
- Education and Training;
- Research and Development;
- Analysis and Lessons Learned;
- Consultation.

## **Vision**

As a Military Police think tank and motor for innovation, we build bridges between nations, organisations and institutions for further evolution of MP standards and capabilities to support cooperation and interoperability of NATO and partners.



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The evolving landscape of modern warfare demands a comprehensive re-evaluation of the capabilities and responsibilities of the Military Police (MP). The NATO MP COE recognizes that the MP's role goes far beyond traditional discipline enforcement. With significant shifts in the geopolitical scene, particularly insights from the Russia-Ukraine war, modern MP units are confronted with a myriad of challenges. Navigating these challenges necessitates that MP units be highly adaptive, ensuring they remain effective and responsive, even as the nature of their operational environment continues to evolve.

2023, the NATO COE undertook a series of significant initiatives to bolster our mission and support the broader military community. We executed numerous courses workshops, and organized pivotal conferences. delivered a variety of studies and handbooks that enriched our expertise. Moreover, we heightened our engagement with our Communities of Interest by introducing and organizing new events, notably the MP/ Gendarmerie-type forces (GTF) Senior Command Enlisted Leader Forum, the Operational Detention Forum, and the NATO



MP Working Dogs Forum. Through these endeavors, we aimed to foster a stronger sense of collaboration, knowledge sharing, and skill development within the Military Police sphere.

Looking ahead to 2024, the NATO MP COE is not only focused on continuing its support to NATO MP and gendarmeries but is also keen to make our courses accessible to NATO Partners. Our vision for the coming year is detailed in the NATO MP COE Event Catalogue for 2024, available at mpcoe.org. Building on this commitment, and as a



testament to our relentless pursuit of excellence, our courses have been accredited by NATO with the highest quality standards.

The NATO MP COE is more than just a training facility; it's a hub for the Military Police community. We're dedicated to fostering networking, learning, and training opportunities to enhance cooperation and knowledge within the MP Family. As the landscape of warfare evolves, so do our offerings. We remain committed to serving, supporting, and elevating the stature and capabilities of the MP/GTF in a rapidly changing world.

# NATO MODELLING AND SIMULATION CENTRE OF EXCELLENCE

(NATO M&S COE)

# **Director's Message**

The NATO Modelling & Simulation Centre of Excellence is an international source of expertise focused on supporting NATO's Digital Transformation and providing M&S support at the point of need. The Centre is committed to Quality Assurance and was reaccredited as a NATO Education & Training Facility providing quality M&S courses to members of the Alliance. The M&S COE is a hub for the M&S community of interest promoting cooperation, sharing of M&S expertise, and contributing to the development of new M&S concepts and capabilities.

## **Mission Statement**

To support NATO, NATO Nations and Partner Nations by providing subject matter expertise in all aspects of M&S activities.

Colonel Francesco PACILLO

## Who we are / What we do

An organization of experienced military leaders and "digital generation" talents from 4 NATO Nations, representing all domains with expertise in both combat and combat support roles, and in the application of modelling and simulations in support of military activities.



To contribute to NATO Transformation by enhancing operational effectiveness and resource management.

2023 / 2024

### **MODELLING & SIMULATION SERVICES**

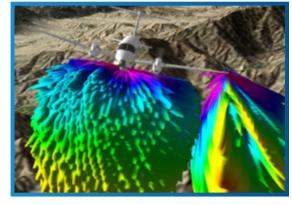
M&S Services Branch focused heavily on Wargaming during 2023. The MSCOE continues to maintain our Wargaming Interactive Scenario

Digital Overlay Model (WISDOM), which is a very powerful solution available to support Wargaming activities. In 2023, the MSCOE contributed to the development of the NATO Wargaming Capability. This included support to NATO Science and Technologies research teams and participation in the Wargaming Initiative for NATO. Work will continue in Wargaming and Simulation integration to connect WISDOM and a simulation system. In 2024, the MSCOE will demonstrate our proof of concept during the Coalition Warrior Interoperability Exercise. Connected to this effort, we are going to explore options to support NATO in establishing a certification process for the High Level Architecture interoperability standard. Additionally, we will utilize WISDOM and support NATO Wargaming activities.

### CONCEPT DEVELOPMENT AND EXPERIMENTATION

M&S as a Service (MSaaS) is a concept that enables an ecosystem that will supply and provide improved services to discover, compose and execute required simulation environments, using cloud-based computing. MASTER is an MSaaS environment for orchestrating both physical and virtual applications and networks, equipped with an intuitive web interface (drag & drop), capable of creating and managing dynamic deployment environments for simulation products and services and was employed as an M&S tool during CWIX 2022 as a cloud Server Node.

Electromagnetic Spectrum Operations (EMSO) project is an essential element to conduct future military operations. The MSCOE



conducted a project to create a synthetic environment for the virtualization of the EMSO. The MSCOE will leq continue to work on the Electromagnetic Layer for Multi-domain Operations (ELMO), building electromagnetic

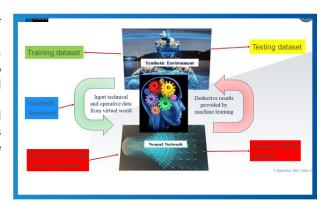






multi-domain virtual scenarios to produce a proof of concept implementation and multi-level integration of M&S processes. The Centre worked on the SWORDOM (SWORD - WISDOM) project, an Integrated Synthetic Environment between two tools, WISDOM and MASA SWORD to enable digital traditional wargaming activities.

Moving forward, the Branch will develop a conceptual framework (proof of concept) to explore possible solutions to improve decision making, Training and Wargaming in the CBRN field, defining a CBRN layer in a synthetic environment.



#### **DOCTRINE EDUCATION AND TRAINING**

The Doctrine, Education & Training (DET) Branch is responsible

for conducting the Centre's courses on M&S, Quality Assurance, and Professional Development.

In 2022, DET conducted four NATO approved courses on M&S to include two iterations of the NATO M&S Basic Course (virtual), which provides basic education on M&S and how it is used in the NATO Alliance. The DET Branch will continue to conduct two iterations virtually. The NATO Exercise Support, M&S Integration Specialist Course is a course to prepare technicians to integrate command & control systems with simulation systems used in a NATO exercise. The NATO CAX Specialist Certification Course trains NATO personnel on the systems they will use as part of a response cell of a NATO exercise. This course decreases the amount of time needed for pre-exercise training and continues to grow in popularity. The M&S courses provide education and training from beginners to advanced practitioners and supported over 150 students from over 20 nations.

#### **MAJOR EVENT**

The MSCOE also executes the NATO Computer Assisted Analysis, Exercise and Experimentation (CA2X2) Forum, an event that brings together the M&S community of interest to present current and future projects. The CA2X2 Forum hosted over 450 registered participants from more than 35 nations while presenting more than 70 sessions related to M&S. Lastly, the MSCOE also executes the Modelling and Simulation for Autonomous Systems (MESAS) conference in conjunction with the Czech University of Defence bringing this niche community together to advance their projects.





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# NATO MOUNTAIN WARFARE CENTRE OF EXCELLENCE (NATO MW COE)

# **Director's Message**

Mountain warfare is well-developed in many Alliance's Nations but not sufficiently addressed in NATO. Since its founding, the NATO MW COE has been successfully integrating mountain warfare into NATO's operational and warfare development as part of overall NATO transformational effort through training, standardization, common terminology and concepts related to mountain warfare. The Centre is a hub and a focal point of military mountain knowledge for the Alliance and Partners including academia and industry. It is a tailored multinational military organisation which accumulates and delivers knowledge and expertise in the field of mountain warfare to NATO, Allies and Partner Nations by combining existing knowledge and experience, thus enhancing interoperability, improving standardization and effectiveness in support of comprehensive capability development.



Colonel Leon HOLC

## **Mission Statement**

The mission of the NATO MW COE is to assist NATO member countries, partners, other countries and international organizations to enhance mountain warfare capabilities through the following core areas:

- Development of mountain warfare-specific doctrine and tactics;
- Concept development and experimentation;
- Mountain warfare lessons learned process;
- Education and training;
- Support for capability development.

# Who we are / What we do

The NATO MW COE is a multi-nationally sponsored entity which offers recognized expertise and experience to the benefit of the Alliance,

especially in support of its transformation endeavours. One mandatory purpose of the NATO MW COE is to provide tangible improvement in NATO's capabilities, thereby adding value.

It incorporates a professional core that ensures and develops the subject matter expertise to meet the requirements of mountain warfare challenges. This enhances the ability of individuals and military units to engage in mountain warfare, as well as the Alliance's readiness to operate in the mountain environment.

## **Vision**

The vision of the NATO MW COE is to be the hub for mountain warfare expertise in the NATO community.

## 2023 / 2024

# **Doctrine and Standardization Branch** 2023:

The most significant achievement presents the completion of the ATP 3.2.1.3 (CONDUCT OF LAND OPERATIONS IN MOUNTAINOUS TERRAIN). The endorsement of the ATP is expected by the end of the year. Furthermore, we supported Poland in holding the International Scientific Conference on the topic "MOUNTAIN COMBAT ENVIRONMENT EXPERIENCES AND PERSPECTIVES", organized the 5th NATO Mountain Warfare Congress on the topic "Vertical Manoeuvre" and led the Specific Environment Panel "Mountain Warfare" in the Slovak Republic.









#### 2024:

Main effort will focus on revision of ATrainP-6, MOUNTAIN WARFARE EDUCATION AND TRAINING publication. The branch will also conduct two workshops, namely:

- Risk Management focusing on the winter season,
- The basic principles of using drones in mountainous environment.
- Working-meeting on the topic Terminology will be conducted IOT review our STANAGs regarding the use of the correct terms.

## Concept Development & Experimentation:

The branch successfully conducted the 2nd Cavalry Support to MW Ops workshops. The completed Pre-initiation phase of MULTI-DOMAIN MOUNTAIN WARFARE CONCEPT development presents an important step in to the future of mountain warfare development. Cooperation with the industry is best revealed with the on-going Exoskeleton project.



#### 2024:

Focus of the CD&E Branch will be given on the further development of MULTI-DOMAIN MOUNTAIN WARFARE CONCEPT. In the context of long-term military transformation, the branch will also contribute to the development of MW-related concepts, projects and studies organised by other NATO entities.

### **Education and Training Branch:**

#### 2023:

E&T was challenged with a growth of requests submitted by Sponsoring Nations. We conducted three residential courses + METT in HRV. 203 participants from 12 NATO members and Partner nations successfully completed our courses. In order to support the deployed forces and enhancing MW capabilities, E&T branch provided SMEs also for MW exercises in Montenegro and Poland.

#### 2024:

The branch will conduct five courses for leaders and planners from team/squad level up to battalion/brigade staff level. The courses will be conducted in Germany, Slovenia, Poland and Croatia, featuring a multitude of different mountain environments, each with its own special characteristics. In addition to residential courses, the E&T Branch offers remote education solutions as well, through two e-learning courses, available on the JADL platform and the NATO MW COE website.

#### **Lessons Learned Branch:**

### 2023:

At least once a year we gather our Community of Interest in a Workshop where we analyse topics related to Mountain Warfare and the COE's position on them. In DEC23 we organized an event entitled: Modern Warfare /Mountain Warfare with the aim to support our COE MW MDO Concept Research phase.

#### 2024:

In order to promote and familiarize participants with Mountain Warfare and to gather some lessons from the past which can be applicable for advanced mountain warfare, the NATO MW COE will organize a Battlefield tour / Study trip in the area of WWI 12th Soška / Isonzo Battle and Piave Battles.



More information is available on NATO MW COE web page: https://www.mwcoe.org/

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# NATO NAVAL MINE WARFARE CENTRE OF EXCELLENCE (NATO NMW COE)

# **Director's Message**

Naval Mine Warfare is now more relevant than ever. The sea mining in the Black shipping and trade hard. Vast amounts of mines are in stock worldwide (e.g. Russia, consist of legacy mines, legacy mines upgraded with modern sensors/ activation complex, sophisticated modern mines. At the same time, there is the threat of maritime (IED's) which are easy to make and capable of having enormous (economic) impact.

Among NATO allies, own sea mine laying capabilities need to be integrated. At this have nations who can provide robust mine laying capabilities independently, however, of sea mines nations are not eager to share their experience with regards to mine Only a common effort all NATO allies can make a breakthrough in this relevant area. might empower this process as soon as they join NATO.

In the meantime, many different innovative technologies are implemented to capabilities differ significantly from the legacy means and include remote controlled equipped with new types of sensors and other revolutionary systems. To introduce new and tactics, planning and evaluation algorithms, a necessity for tools, education paramount. The NATO Naval Mine Warfare Centre of Excellence aims to guide and support these developments to take NATO's Naval Mine Warfare capabilities into the next era.



The NATO NMW COE aims to expand its capabilities by attracting SME's from other NATO Nations and NATO Partners.

## **Mission Statement**

The NMW COE focuses on training and education, doctrine and standardization, lessons learned and analysis, concept development and experimentation in order to deliver the best possible support in NMW to NATO Headquarters, NATO Nations and NATO Partners.



## Who we are / What we do

The NMW COE is THE NATO entity with expertise and excellence in the Naval Mine Warfare domain. It emerged from Ecole de Guerre de Mine (EGUERMIN, now BEL NAC) which for long has been a hub of knowledge for NMW. Today, we use each other's NMW knowledge as well as the expertise from the ABNL (Admiral BENELUX) Mission Support Centre (also present in the same premises).

The NATO NMW COE addresses an atypical warfare area as for the operating environment and the characteristics of the threat. The NATO NMW COE is on the forefront of the developments in the NMW domain. As is the case for any COE, our focus is also on Concept Development and Experimentation, Doctrine and Standardization, Lessons Learned and Analysis as well as Education and Training.

## **Vision**

The NATO Naval Mine Warfare Centre of Excellence is the recognized hub of knowledge and expertise in Naval Mine Warfare for NATO, NATO Nations and Partner Nations and their associated research institutes in support of NATO transformation. Warfare for NATO, Allied and Partner Nations and their associated research institutes in support of NATO transformation.

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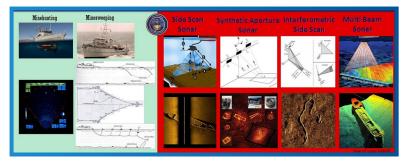




In 2023, the NMW COE:

- Continued to be NATO's central hub leading and supporting activities related to the integration of legacy and modern (autonomous) systems into a common MCM Planning and Evaluation process;
- Actively contributed to the NATO Doctrine and Standardization process, by participating in and leading various Working Groups, providing or commenting Change Proposals to Allied Publications and Terminology Proposals, hosting the TTEP (Tactics and Tools Evaluation Panel) and the VSWP (Very Shallow Waters Panel) under the NMWWG (naval Mine Warfare Working Group);
- Initiated, led and participated in Concept Development and Experimentation initiatives and campaigns for future Naval Mine Warfare capabilities, like REPMUS (Robotics Experimentation and Prototyping through the use of Maritime Unmanned Systems) and the testing of NMW EXTACs (Experimental Tactics) e.g., 878, 882 and 885;
- Contributed to ACT Minimal Viable Product initiatives as LIME 711 and MCM Trumpet. Support the NATO NMW Principal Warfare course, the NATO NMW Staff Officer course and the OPP (Operational Planning Process) -7 Questions Maritime Tactical Estimate course at the Navy Academy in Ostend, Belgium;
- Participated in different conferences related to the work done in the four pillars;
- Hosted different NMW on-line related events open for NATO public with topics like new sensors for NMCM (VOYIS optical sensor), legal challenges when using Unmanned Systems and new methods for disposing of sea mines without detonation (mine deflagration);
- Worked on 'Requests for Support' sent by ACT, JALLC, JWC, MARCOM and the Italian Navy, to name a few. Examples are the MCM EXCON of REPMUS, participation in the NMW cell of Dynamic Messenger and support to the Exercise Sea Breeze and conference regarding the future 'demining' of the Black Sea;
- Contributed to MAREVAL of SNMCMG1 with 1 controller;
- Actively participated in the writing of the Future Naval Mine Warfare Concept and corresponding NMW Roadmap.
   In 2024, the NMW COE will continue to actively participate in most of the above-mentioned activities. New activities are:
- Producing a study paper on the challenges when using Unmanned Surface Vessels in NMCM;
- Initiating a study on the impact of side scan sonars and synthetic aperture sonars on the bottom classification used for risk predictions;
- Collecting and sharing Lessons Identified/ lessons learned with regard to the situation, related to sea mines, in the Black Sea.







# NATO SECURITY FORCE ASSISTANCE CENTRE OF EXCELLENCE (NATO SFA COE)

# **Director's Message**

Since its foundation, as a result of the Security Force Assistance concept delivery during the 2014 Wales Summit, the SFA COE has been generally working to support NATO's transformation pillars and specifically striving to achieve its mission through three fundamental lines of effort. Therefore, the Centre will be fully committed in consolidating the significant linkage, built day by day with all the stakeholders of the SFA Community of Interest, pushing to enhance Human Capital by boosting the quality of SFA Operators and last, but not least, continuing to support Operations in any manner within an ever changing geopolitical scenario through a peculiar dimension of a "continuum of competition", even exploring new opportunities and possibilities and staying focused, determined, adaptive, open-minded and resilient.

## **Mission Statement**

Improve the effectiveness of the Alliance in promoting stability and reconstruction efforts for conflict and post-conflict scenarios through related Lessons Learned, Education and Training analysis, development of Concept and Doctrine activities.

Provide a unique capability to Alliance, NATO Nations and NATO Partners in the field of SFA.



Colonel Matteo LUCIANI



## Who we are / What we do

The NATO SFA COE is a multinational organization sponsored by Albania, Italy (Framework Nation), and Slovenia as Sponsoring Nations, and Austria as Contributing Participant.

It is committed to providing a unique capability to the Alliance and NATO Partners in the field of SFA through the sharing of expertise and knowledge, while cementing the varied skills required to accomplish the numerous tasks, missions, and challenges that the COE faces as a team.

The strength of the Centre is based on the inseparable connection established with a heterogeneous domain consisting of an academic sphere, NATO Command Structure (NCS) and NATO Force Structure (NFS), IOs, COEs, think tanks and research institutes. The COE's comprehensiveness is the critical aspect of the approach in developing projects and related activities carried out along three lines of effort: Policy, Human Capital, and Support to the Operations.

These multiple connections guarantee an out-of-the-box perspective in analysis and research and in the development of the yearly Program of Work.

## **Vision**

The SFA COE is to be an internationally recognized focal point to expand the capabilities of NATO, Nations, and other partners by providing comprehensive expertise and support in the realm of SFA.

## 2023 / 2024

Along the 4 pillars of transformation, the SFA COE is conducting a variety of activities.

### 1. Doctrine Development & Standards

- Supporting the revision and the development process of SFA reference publication (AJP-3.16) and all the NATO publications related to SFA and Defence Capacity Building.
- Developing the outcomes of the Seminar "Religious, Peace, and Security: Challenges and Prospects in the MENA Region".
- Publishing newsletters, articles, and books such as "Out Thinking on 2022 NATO Strategic Concept" and "Insights on Strategic Advising for Security Force Assistance".









### 2. Education and Training:

- Delivering of NATO Selected Courses such as the ADL 362 "Introduction to SFA", the "SFA Operators course" and the "Institutional Adviser course".
- Co-Chairing the NATO Seminars on institutional Advisors aimed at increasing the training of military and civilian personnel who will be employed as Advisors at the institutional level.
- Supporting the NCS and the NFS with Mobile Training Teams and SFA Subject Matter Experts.

#### 3. Concept Development and Experimentation:

- Following the publishing of the Study Paper on the implementation of the NATO SFA Concept within the NCS.
- Developing a SFA Planning Guide.
- · Giving support to the Joint Warfare Centre, for NATO exercises such as the STEADFAST JACKAL, and to the Joint Force Training Centre for pre-deployment training of the NATO Mission Iraq.

#### 4. Analysis and Lessons Learned:

- Developing and finalizing the Remote SFA study paper with the aim to develop a concept to enable a function which allows to tackle the issue, by providing constant assistance and support to the contingents in the theatre of operation
- Developing a study paper related to the Measure of Effectiveness in the SFA advising activities with the aim to support the NATO SFA missions with a set of tools and metrics examples to better Measure the Effectiveness of the SFA advising activities in the theatre of operation.
- Conducting the SFA Advisors' Enhancement Seminar aimed at analysing, testing, and standardizing the knowledge and skills that Advisors must acquire in order to operate effectively in the ever-changing international scenarios.
- Continuing to support the NATO Joint Analysis and Lessons Learned Centre (JALLC) during the analysis phases of the LL process in the SFA domain.

#### <u>Plans for 2024:</u>

The COE plans to continue to pursue its objectives through the development of the following new projects:

- Develop SFA metrics for Planners (MOPs and MOEs).
- Develop Capability Statements and Capability Codes for SFA.
- Develop Remote SFA.
- Propose to NATO a new joint function called Assistance.
- Expand the training offer by certifying new or current training solutions.
- Support the NATO effort on the Eastern and the Southern flanks with any possible means.
- · Conduct a strong media campaign to enlarge the Community of interest and attract new Sponsoring Nations/Contributing Partners.
- Conduct a series of surveys in the current NATO and non-NATO missions where SFA is carried out in order to retrieve first-hand lessons identified and best practices.
- Continue to support the COP courses of NATO School Oberammergau.



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# NATO SPACE CENTRE OF EXCELLENCE (NATO SPACE COE)

# Director's Message

As of 2019, Space is the 5th operational domain recognized by NATO, alongside Air, Sea, Land and Cyber. It was therefore logical to dedicate a Centre of Excellence specifically to Space, to have an entity capable of delivering expertise, advice and emerging concepts regarding Space for the benefit of the Alliance.

This was achieved with the accreditation of the NATO Space COE, obtained on 14th July 2023.

Now in its ramp-up phase, the NATO Space COE is already involved in supporting NATO on several major issues, including the integration of the space environment through the Multi Domain Operations concept, the writing of the space operations doctrine, or the support of major joint allied exercises.

With the arrival of its full work power and the delivery of its final building scheduled for 2025 in Toulouse, the NATO Space COE will reach its full operational capability and will be an invaluable tool for NATO in a field as demanding as difficult to master.



## **Mission Statement**

The NATO Space COE is the catalyst for the comprehension, improvement, and transformation of Space Power by delivering effective solutions and providing relevant expertise to the benefit of NATO and its Allies.

## Who we are / What we do

The NATO Space COE can take advantage of worldwide Space resources and expertise to monitor the latest trends, detect technological breakthroughs, assess their consequences, and leverage their benefits for NATO, Allies and partners.

Hence, through its 4 pillars (Concept Development and Experimentation, Doctrine and Standardization, Education and Training, Analysis and Lessons Learned), the Space COE provides knowledge, analysis, and products covering the three operational functions:

- Space Domain Awareness (SDA);
- Operational Space Support (OSS);
- Space Domain Coordination (SDC).

## Vision

Recently accredited, the Space COE is already involved in major military space issues within NATO.

For example, on behalf of HQ SACT, the Space COE is acting as Department Head for the Space discipline and will take over the role of custodian in the writing of the NATO Space Operations doctrine in 2024, with the aim of delivering the final version to the Alliance in 2026.

We therefore need to keep the right balance between responding to ever-increasing Requests for Support and ensuring the Space COE ramp-up phase to reach its Full Operational Capability in 2025.

## 2023 / 2024

In just 6 months after the signing of the Space COE Operational memorandum of Understanding, the official accreditation of the centre was announced during the NATO Summit in Vilnius, on 14th July 2023.

Main effort in 2023 for the NATO Space COE was to increase the workforce, to build up a team of experts and to reach out to NATO entities, industry and academia.











Nevertheless, the following NATO Space COE key actions can already be mentioned:

#### Education & Training

- The NATO Space COE, as Department Head of Space discipline on behalf of NATO ACT, took over the function from JAPCC and chaired its first Pre-Annual Discipline Conference, in May 2023 in Brussels, which was the opportunity to announce its IOC;
- In the continuity, the NATO Space COE chaired the Annual Discipline Conference on 26th October 2023 in CAOC Torrejon, Spain;
- Regarding the training part, despite a lack of work power due to its ramp-up phase, the NATO Space COE supports already the main joint allied exercise, Steadfast Jupiter 2023 and several courses at NATO School Oberammergau (NSO), to give space-related expertise and advice.



#### **Doctrine & Standardization**

Already involved in 2023 in the writing Team of the future Space Operations doctrine for NATO (AJP 3.X), the NATO Space COE will take over the custodianship of this process in spring 2024, with the goal to provide the final version of this doctrine by 2026.

## Concept Development and Experimentation (CD&E)

Building-up day after day its capability, the CD&E Division is already involved in prospective topics regarding future Space concepts and capabilities which could represent an interest for the Alliance and its partners.

Especially, developing Datas sharing and facilitating interoperability within the Space domain, represents one of the main challenges for the Alliance.

#### To support it, the CD&E Division:

- Contributes to the Coalition Warrior Interoperability eXploration, eXperimentation, eXamination eXercise (CWIX) to support efforts to improve interoperability within the NATO through the Space domain;
- Supports the **Federate Mission Network (FMN)** to promote Datas sharing between the Alliance partners regarding Space;
- Will be involved in the development of Wargaming to integrate Space capabilities in that concept.

#### **Analysis and Lessons Learned:**

To optimize the processes within each pillar of the NATO Space COE and to support the NATO Lessons Learned Process, the Analysis and Lessons learned Division will be build up from 2024 to ensure the Alliance remains a

successful learning organization.



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# Director's Message

The Alliance is facing a dramatic evolution of the security environment, whose old and new threats have drastically broadened NATO security challenges well beyond traditional military bounds. In this framework, Stability Policing, traditionally a "bridging factor" among worlds, is emerging, once again, as a booster for innovation for many forms of interaction between traditionally incontiguous cognitive worlds, such the "Internal Security" world and the "Collective Defence" world. NATO Stability Policing Centre of Excellence is ready to drive this process of constant innovation, by enhancing its research capabilities, with the creation of a fourth Branch entirely dedicated to this endeavour. While confirming the incredible benefits of the "blue lens" applied to stabilization operations – an approach rooted in the 90 years of last century – an evolved Stability Policing doctrine will therefore face the new scenarios with the confidence allowed by an uncontested base of expertise, meticulously gathered in many theatres of operation by the Stability Policing Centre of Excellence, that will always be ready to provide the Alliance the most up-to-date doctrinal, educational and research products.



## **Mission Statement**

The mission of the NATO Stability Policing CoE is to be an internationally recognized focal point and a hub of expertise for a Community of Interest in the field of Stability Policing, which is a set of police-related activities intended to reinforce or temporarily replace the indigenous police in order to contribute to the restoration and/or upholding of the public order and security, rule of law, and the protection of human rights (AJP 3-22).

## Who we are / What we do

The NSPCoE was formally established on 9 April 2015, upon the entry into force of the two Memorandums of Understanding ruling the internal functioning of the NATO SP COE, the chain of command, the external relations and the functional relationship with ACT. The early Parties were Italy, as the Framework Nation, and the Czech Republic, France, The Netherlands, Poland, Romania, Spain, Turkey, as the Sponsoring Nations, as well as the Allied Command Transformation (ACT). On 4 October 2018, Greece joined the Centre.



## **Vision**

To operate as a prime mover to increase contribution to NATO stabilization and reconstruction efforts in conflict and post-conflict scenarios and to provide an unique capability to the Alliance and its member States, as well as NATO partners and International Organizations in the area of SP.

## 2023 / 2024

#### **Major Products and Activities for 2023**

- Doctrine and Standardization
- contributed to the review of 8 NATO AJP and 2 concepts (MDO in Urban environment and layered Resilience);
- review, update and modify ATP 103 WT as custodian;
- contributed to MP Panels;
- organised a Human Security Conference;
- contributed to Technical Exploitation and battlefield Evidence WG and policy Tiger teams;
- published articles and one report on Human Security.







#### **Education, Training and Exercise**

- Delivered:
  - Six residential courses;
  - Upon NATO HQ's request, thanks to a US grant, two iterations of the "Battlefield Evidence Institutional Level Course" for NATO Partners;
  - Workshop on Fostering SP themes in NATO Exercises for SNs
- Designed:
  - "Police Capability Building in Post Conflict Country" residential course;
  - "SP Contribution to CPP in NATO Operations" e-learning course.



- Planning process and execution phases of STEADFAST JACKAL 2023 and STEADFAST JUPITER 2023 Exercises;
- NSO and MP CoE by providing lectures on SP in various courses;
- DEEP for Tunisia, by delivering a SP module.

### **Lessons Learned & Analysis**

- Contributed to the Situational Understanding TWG within the Layered Resilience Concept;
- LEINT workshop and generation of the LEINT project in cooperation with the NATO Intelligence Enterprise;
- Workshop on SP in the Cyber domain;
- LL PoC Workshop in favour of the Sponsoring Nations;
- Elaboration of the automated SP LL questionnaire;
- UKR LL Project and definition of Seven LoEs;
- Creation of the SP Classified portion on NS NATO LL Portal.

#### Major Products and Activities planned for 2024:

NSPCoE will keep working to support the Alliance as well as to finalise ongoing/launch the following workstreams: contribute to Technical Exploitation and battlefield Evidence WG and policy Tiger teams;

- review of NATO publications and concepts (MDO in Urban environment and Layered Resilience);
- deliver six residential NATO courses along with support NATO exercises;
- enhancing e-learning solutions implementing them across other NATO e-learning platforms.
- share observations, best practices, LI and LL related to the situation in Ukraine;



- lead the LEINT project and support the LEINT Concept Development;
- contribute to the Situational Understanding TWG within the Layered Resilience Concept;
- transnational Organized Crime and illegal and uncontrolled arms proliferation among civilians' workshop;
- dual badge Conference on Organised Crime as hybrid tool Hybrid in cooperation with the NIFC; dual Badge Conference on RUS/UKR conflict with Padua University.

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# NATO STRATEGIC COMMUNICATIONS CENTRE OF EXCELLENCE

# Director's Message

With war returning to Europe, the debate about military preparedness and cognitive capabilities has deepened. Technologies related to extended reality provide potential for information manipulation at an unprecedented scale and continue to revolutionize the information space, including individual information consumption habits. We are witnessing strategic geopolitical shifts with an embedded component of technological rivalry. These developments demand broad mindset and adaptation of a long-term strategy.

NATO Strategic Communications Centre of Excellence works to deliver up-to-date and in-depth analysis of methodologies applied by malicious actors across the information space. Our work focuses on but is not limited to the digital environment analysis, with particular focus on emerging technologies and AI, to provide comprehensive and practical knowledge base to those working in the field of strategic communications. We base of complex communications processes and emerging technologies for NATO effectively. Expertise in strategic communications formed by combining knowledge academic sectors allows the COE to form research-based framework for Alliance's operations.



Mr. Janis SARTS

## **Mission Statement**

The COE's mission is to support NATO's strategic communications capability and contribute to the Alliance's communication processes by providing comprehensive analysis, timely advice and practical support. The Centre's aim is to contribute substantially to the improvement of NATO, its Allies' and Partners' strategic communication capabilities through research, analysis, concept development, prototyping, doctrine development, standardisation and case studies, furthermore investing into the continuing development of StratCom education and training.

## Who we are / What we do

During its first 9 years of full operational capability the NATO StratCom COE has established itself as one of the primary research and fusion hubs on subjects of strategic communications, countering disinformation, revealing trends in digital security and understanding hostile actor strategies, tactics, methodologies and techniques in the Euro-Atlantic area, covering StratCom and related functions of PA, PD, InfoOps, as well as the communication capabilities of PsyOps and Mil PA. COE's international team of experts conducts research in response to the needs of NATO and governments of participating nations, develops trainings, designs programmes to advance the development of NATO military doctrine, and provides comprehensive analysis and practical support for decision makers in the Alliance.



## **Vision**

NATO StratCom COE has determined that its vision foresees seeking to increase Centre's knowledge pool in areas critical to development of strategic communications, through research, experimentation, cooperation and prototype development. This knowledge will be shared with NATO, its Allies and Partners through assistance in doctrine and concept development, education and training inputs and interaction with stakeholders across the Euro-Atlantic area. To capture the complexity of contemporary information environment, the COE will focus on looking into the military, government, societal and technological aspects of StratCom.

## 2023 / 2024

In 2023 COE's subject m tter experts were involved in numerous projects aimed to develop StratCom mindset, processes, related functions and capabilities.

The COE has successfully promulgated the first edition of the new doctrine holding the StratCom fundamentals for the operational level of NATO's command structure. As a custodian the COE has also completed the development of NATO doctrine on Mil PA, which has been submitted to the NATO SO for ratification by member states in 2024. To ensure global discussion platform aimed to tackle current issues in global security, information







environment and cognitive domain in 2023, the COE organized its two-day annual conference "Riga StratCom Dialogue" attracting more than 600 participants. This year the conference hosted an enterprise marketplace to demonstrate efforts of the private sector in developing StratCom related products and solutions.

The COE has organized 14 events in 2023 with an aim to facilitate general knowledge of StratCom, raise awareness of information manipulation tools, recognition mechanisms, potential threats and opportunities presented by Al tools, as well as contribute to the analysis of the digital environment

and its imposed threats. To reach this aim, COE has also published 14 researches, as well continued its work on #StratCom Podcast (available on Spotify and YouTube). One of the most ambitious current research projects looks at construction, impact and ramifications of Russia's information influence operations in Latin America, Asia and Africa. Another research maps Russia's communication strategy to support its military actions in Ukraine and influence various audiences.

In 2023, the COE has also worked closely with local and international media achieving visibility in more than 350 news pieces.

In 2023, the COE continued cooperation with government of Ukraine, playing a key role in coordinating with stakeholders and donors. Support has included visits to Kyiv, joint research and information sharing with Ukrainian government entities (National Defence University, Centre for Strategic Communications, Centre for Countering Disinformation, Ministry of Foreign Affairs and Territorial Defence Force) delivery of specialist training and the placement of a Ukrainian communication expert at the COE.

#### **Education & Training (E&T):**

In 2023 the COE dedicated its expertise to several projects designed for the development and improvement of NATO StratCom education and training solutions, organized multiple trainings, as well as supported exercises as CORE 23, Locked Shields 23 and STEADFAST JUPITER 23.

#### LL & Analysis:

In 2023, the NATO StratCom COE has participated in regular NATO LL SPRING WEEK 2023, has been supporting NCS and NATO countries. Observations captured during the joint evaluation are provided to exercise organizers to develop the LI/LL and submit to the JALLC.

In the field of research, among many others in 2023 the COE has published the research report "Exploratory Research Report on the Information Environment in a Political and Security Crisis Context in the Sahel Region" focusing on challenges within the Sahelian media ecosystem to providing non-biased regional assessments of critical themes. The report also provides practical recommendations to enhance both the quality and scope of monitoring efforts in the Sahel region. As for the 2024, the NATO StratCom COE will continue its work according to the POW 2024 thus strengthening StratCom capabilities of NATO, its Allies and Partners. Particular focus will be directed towards assessing emerging trends in the information environment and Al where particular emphasis will be laid upon the study, application, and implications of generative Al technologies. The Centre will contribute to continuous development of StratCom education and training, continue to issue the academic journal "Defence Strategic Communications", produce the #StratComPodcast and organize various events including the conference "Riga StratCom Dialogue".

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# **CURRENT COE STATUS AND LOCATION**

Centre of Excellence (COE)	FN	Sponsoring/ Partner Nations	Location	Accreditation Date
Air Operations (AO)	FRA	FRA	Lyon Mont Verdun, FRA	18-Feb-08
Civil-Military Cooperation (CCOE)	NLD & DEU	DEU, HUN, ITA, LVA,NLD, POL	The Hague, NLD	31-Jul-07
Cold Weather Operations (CWO)	NOR	NOR	Elverum, NOR	31-Jul-07
Combined Joint Operations from the Sea (CJOS)	USA	CAN, DEU, ESP, FRA, GBR, GRC, ITA, NLD, NOR, PRT, ROU, TUR, USA	Norfolk, USA	14-Dec-06
Command and Control (C2)	NLD	ESP, NLD, TUR, USA	Utrecht, NLD	04-Apr-08
Confined and Shallow Waters (Operations In) (CSW)	DEU	DEU, DNK, EST, GRC, ITA, LTU, NLD, POL, TUR, USA	Kiel, DEU	03-Mar-09
Cooperative Cyber Defence (CCD)	EST	ALB*, BEL, BGR, CAN, CZE, DEU, DNK, ESP, EST, FIN, FRA, GBR, GRC, HRV, HUN, ISL, ITA, LUX, LTU, LVA, MKD*, MNE, NLD, NOR, POL, PRT, ROU, SVK, SVN, TUR, USA, AUS*, CHE, SWE, KOR, JPN, IRE, UKR	Tallinn, EST	28-0ct-08
Counter Improvised Explosive Devices (C-IED)	ESP	CZE, DEU, ESP, FRA, GRC, HUN, NLD, PRT, ROU, TUR, USA, SWE	Madrid, ESP	14-Nov-10
Counter-Intelligence (CI)	POL & SVK	CZE, DEU, HRV, HUN, ITA, LTU, POL, ROU, SVK, SVN, USA	Krakow, POL	22-Feb-17
Crisis Management and Disaster Response (CMDR)	BGR	BGR, GRC, HUN, POL, ROU	Sofia, BGR	31-Mar-15
Defence Against Terrorism (DAT)	TUR	ALB, DEU, GBR, HUN, ITA, ROU, TUR, USA	Ankara, TUR	14-Aug-06
Energy Security (ENSEC)	LTU	DEU, EST, FRA, GBR, ITA, LTU, LVA, POL, TUR, USA, FIN, <mark>GEO, UKR</mark>	Vilnius, LTU	12-Oct-12
Explosive Ordnance Disposal (EOD)	SVK	CZE, HUN, POL, ROU, SVK	Trencin, SVK	28-Apr-11
Human Intelligence (HUMINT)	ROU	CZE, GRC, HUN, POL, ROU, SVK, SVN, TUR, USA	Oradea, ROU	29-Jul-10
INTEGRATED AIR & MISSILE DEFENCE (IAMD)	GRC	BGR, CZE, FRA*, GRC, ROU, TUR	Chania, GRC	25-Jan-21

Contract Freedly (CCF)	EM -	0		A
Centre of Excellence (COE)	FN	Sponsoring/ Partner Nations	Location	Accreditation Date
Joint Air Power Competence Centre (JAPCC)	DEU	BEL, CAN, CZE, DEU, ESP, GBR, GRC, HUN, ITA, NLD, POL, ROU, TUR, USA	Kalkar, DEU	01-Jan-05
Joint Chemical, Biological, Radiological and Nuclear Defence (JCBRN Defence)	CZE	CAN, CZE, DEU, FRA, GBR, GRC, HUN, ITA, POL, ROU, SVK, SVN, USA, AUT	Vyškov, CZE	31-Jul-07
Maritime Security (MARSEC)	TUR	GRC, PRT, ROU, TUR	Istanbul, TUR	08-Jun-20
Maritime Geospatial, Meteorological & Oceanographic (MGEOMETOC)	PRT	ESP, PRT, ROU, TUR	Lisbon, PRT	23-Jun-22
Military Engineering (MILENG)	DEU	BEL, CAN, CZE, DEU, DNK, ESP, FRA, GBR, GRC, HUN, ITA, NLD, NOR, POL, ROU, TUR, USA	Ingolstadt, DEU	09-Mar-09
Military Medicine (MILMED)	HUN	BEL, CZE, DEU, FRA, GBR, HUN, ITA, NLD, POL, ROU, SVK, USA	Budapest, HUN & Munich, DEU	12-0ct-09
Military Police (MP)	POL	BGR, CZE, DEU, GRC, HRV, HUN, ITA, NLD, POL, ROU, SVK	Bydgoszcz, POL	28-May-14
Modelling & Simulation (M&S)	ITA	CZE, DEU, ITA, USA	Rome, ITA	18-Jul-12
Mountain Warfare (MW)	SVN	CZE, DEU, HRV, ITA, MKD*, POL, ROU, SVN, AUT	Begunje na Gorenjskem, SVN	27-Nov-15
Naval Mine Warfare (NMW)	BEL & NLD	BEL, ITA, NLD, POL	Ostend, BEL	17-Nov-06
Security Force Assistance (SFA)	ITA	ALB, ITA, SVN, AUT	Rome, ITA	30-Nov-18
Space	FRA	BEL, CZE, FRA, DEU, GRC, ITA, LUX, NLD, MKD, POL, PRT, ROU, ESP, TUR, GBR	Toulouse, FRA	17-Jul-23
Stability Policing COE (SP)	ITA	CZE, ESP, FRA, GRC, ITA, NLD, POL, ROU, TUR	Vicenza, ITA	09-Dec-15
Strategic Communications (STRATCOM)	LVA	CAN, DNK, DEU, EST, FIN, GBR, ITA, LTU, LVA, NLD, POL, SVK, USA, HUN, SWE, AUS*	Riga, LVA	01-Sep-14

# **NATIONS PARTICIPATING IN COES**

	Country	Sponsoring Nation of	Framework Nation of
	ALB	DAT, CCD, SFA	
	BEL	CCD, JAPCC, MILENG, MILMED, NMW, SPACE	NMW
	BGR	CCD, CMDR, IAMD, MP	CMDR
*	CAN	CCD, CJOS, JAPCC, JCBRN Defence, MILENG, STRATCOM	
	CZE	CCD, CI, C-IED, EOD, HUMINT, IAMD, JAPCC, JCBRN Defence, MILENG, MILMED, M&S, MP, MW, SPACE, SP	JCBRD Defence
	DEU	CCD, CCOE, CI, C-IED, CJOS, CSW, DAT, ENSEC, JAPCC, JCBRN Defence, M&S, MILENG, MILMED, MP, MW, SPACE, STRATCOM	CCDE, CSW, JAPCC, MILENG
+	DNK	CCD, CSW, MILENG, STRATCOM	
癌	ESP	C2, CCD, C-IED, CJOS, JAPCC, MGEOMETOC, MILENG, SPACE, SP	C-IED
	EST	CCD, CSW, ENSEC, STRATCOM	CCD
==	FIN	CCD, ENSEC, STRATCOM	
	FRA	AO, CCD, C-IED, CJOS, ENSEC, IAMD*, JCBRN Defence, MILENG, MILMED, SPACE, SP	AO, SPACE
	GBR	CCD, CJOS, DAT, ENSEC, JAPCC, JCBRN Defence, MILENG, MILMED, SPACE, STRATCOM	
±	GRC	CCD, C-IED, CJOS, CMDR, CSW, HUMINT, IAMD, JAPCC, JCBRN Defence, MARSEC, MILENG, MP, SPACE, SP	IAMD
	HRV	CCD, CI, MP, MW	
	HUN	CCD, CCOE, CI, C-IED, CMDR, DAT, EOD, HUMINT, JAPCC, JCBRN Defence, MILENG, MILMED, MP, STRATCOM	MILMED
#	ISL	CCD	
	ITA	CCD, CCOE, CI, CJOS, CSW, DAT, ENSEC, JAPCC, JCBRN Defence, M&S, MILENG, MILMED, MP, MW, NMW, SFA, SPACE, SP, STRATCOM	M&S, SFA, SP
	LUX	CCD, SPACE	
	LTU	CCD, CI, CSW, ENSEC, STRATCOM	ENSEC

	Country	Sponsoring Nation of	Framework Nation of
	LVA	CCD, CCOE, ENSEC, STRATCOM	STRATCOM
$\Rightarrow \in$	MKD	CCD, MW, SPACE	
*	MNE	CCD	
	NLD	C2, CCD, CCOE, C-IED, CJOS, CSW, DAT, JAPCC, MILENG, MILMED, MP, NMW, SPACE, SP, STRATCOM	C2, CCOE, NMW
##	NOR	CCD, CJOS, CWO, MILENG	cwo
	POL	CCD, CCOE, CI, CMDR, CSW, ENSEC, EOD, HUMINT, JAPCC, JCBRN Defence, MILENG, MILMED, MP, MW, NMW, SPACE, SP, STRATCOM	CI, MP
(8)	PRT	CCD, C-IED, CJOS, MARSEC, MGEOMETOC, SPACE	MGEOMETOC
	ROU	CCD, CI, C-IED, CJOS, CMDR, DAT, EOD, HUMINT, IAMD, JAPCC, JCBRN Defence, MARSEC, MGEOMETOC, MILENG, MILMED, MP, MW, SPACE, SP	HUMINT
#	SVK	CCD, CI, EOD, HUMINT, JCBRN Defence, MILMED, MP, STRATCOM	CI, EOD
8	SVN	CCD, CI, HUMINT, JCBRN Defence, MW, SFA	MW
C*	TUR	C2, CCD, C-IED, CJOS, CSW, DAT, ENSEC, HUMINT, IAMD, JAPCC, MARSEC, MGEOMETOC, MILENG, SPACE, SP	DAT, MARSEC
	USA	C2, CCD, CI, C-IED, CJOS, CSW, DAT, ENSEC, HUMINT, JAPCC, JCBRN Defence, M&S, MILENG, MILMED, STRATCOM	CJOS
	COUNTRY	PARTNER NATION OF	
	AUT	CCD, JCBRN Defence, MW, SFA	
* :	AUS	CCD, STRATCOM*	
+	CHE	CCD	
+ +	GEO	ENSEC	
	IRE	CCD	
	JPN	CCD	
	SWE	CCD, C-IED, STRATCOM	
	KOR	CCD	
	UKR	CCD, ENSEC	

# **NOTES**







