

NATO'S Naval Mine Warfare Centre of Excellence Leverages Institutional Knowledge, Expertise



Standing NATO Mine Countermeasures Group One (SNMCMG1) is one of four standing maritime groups composed of ships from various allied countries. These vessels are continuously available to NATO to perform different tasks ranging from participation in exercises to operational missions. *NATO* The NATO Naval Mine Warfare Centre of Excellence (NMW COE) in Ostend, Belgium, is NATO's main source of expertise regarding all aspects of NMW, leveraging the collective knowledge and expertise from the entire NMW community in support of the alliance.

Like the 26 other COEs accredited by NATO, the NMW COE focuses four main pillars: education, training, exercise and evaluation; analysis and lessons learned; doctrine development and standardization; and concept development and experimentation.

The center brings mine warfare experts together for an annual symposium. Although its two previous conferences were canceled for COVID-19 and other reasons, the 2021 conference was held virtually in June.

"Our focus was how we can learn from each other – not only from military, but also from civilians, and how we can work together in the future," said Cmdr. Herman Lammers of the Royal Netherlands Navy, director of the NMW COE.

In addition to holding its own conference, the NMW COE participates in a long list of working groups, training

courses, conferences and exercises.

“We’re part of NATO’s naval armament, standardization and defense planning working groups, as well as any conference where Naval Mine Warfare is on the agenda. Those meetings are paramount to ensure efficient networking and exchange of expertise and knowledge,” Lammers said. “If we want to be a hub, we need to be present at all those meetings.”

The NMW COE is collocated with EGUERMIN (Ecole de Guerre des Mines), the Belgian-Netherlands Naval Mine Warfare School at Ostend, and assists with their national and international courses when required. Belgium and the Netherlands are founding “framework nations,” with Poland and Italy joining the COE as sponsoring nations. Germany participates via EGUERMIN, through a memorandum of understanding. Lammers said other nations are welcome, too.

Lammers said the center serves as a “hub of knowledge.” The Lessons Learned and Analysis (LL&A) branch is actively involved in collecting and analyzing lessons learned and lessons identified that are forwarded through the NATO Lessons Learned portal, the NATO Allied Maritime Command (MARCOM) at Northwood, United Kingdom, or directly to the NMW COE. After analyzing the problem, a remedial action is proposed and sometimes even tested, so necessary improvements can be made. Lammers said the NMW COE shares this knowledge with MARCOM, The NATO Joint Analysis and Lessons Learned Centre in Lisbon, Portugal, and among the other maritime COEs.

“It’s important to identify what works, as well as understand what doesn’t work and learn from our mistakes,” said Belgian Navy Cmdr. Ward De Grieve, the center’s chief of staff. “It’s the only way to improve.”

As a COE, Lammers said his team is constantly monitoring and evaluating the future trends and technologies.

“Staying on top of all the new developments in a continuous

task. By enabling the exchange of information and experience throughout the maritime community, we can help identify synergies,” Lammers said. “I refer to maritime instead of naval because mines and unexploded ordnance in the maritime domain are no longer exclusively a military issue.”

The COE actively contributes to and participates in exercises like BALTOPS and Bold Move by providing advice and scenario inputs. They develop and evaluate new operating concepts and adapt existing doctrine, as well as establish experimentation with new technologies.

The center conducted experiments during BALTOPS 50 to test and validate experimental tactics involving the use of unmanned underwater and surface vehicles and implemented them into the existing naval mine countermeasures planning and evaluation software tool MCM EXPERT.

The center helps to achieve interoperability among NATO navies through understanding and promoting standardization proposals and updates.

“We are actively participating and contributing to the various working groups and syndicates within NATO to provide balanced advice and proposals to adapt, improve and update existing doctrine,” Lammers said.

Lammers said the NMW COE’s team of seven subject matter experts and small support staff has extensive NMW knowledge and expertise, and can use its relationships, partnerships and connections to assist in many ways.

“If we don’t have an answer to a question, we can rely on our extensive network to provide the necessary answers,” he said. “The NATO NMW COE is the hub of knowledge within NMW. Our focus is not only on the long term, assisting NATO in transformation, but also on real-time practical support to the units at sea.”

Italian army Gen. Paolo Ruggiero, the deputy supreme allied commander transformation, said, “the alliance has been successful because it has constantly adapted and transformed into what was needed to be relevant.”

He credits part of that success to the 27 accredited NATO COEs, including the NMW COE, and the work they do on the four pillars.

According to Ruggiero, the COEs belong to the participating nations, not NATO per se, but are accredited by NATO. There are a set of prerequisites and a rigorous process for a center to be accredited and periodic assessments are required for a COE to maintain its status.

The COEs provide all of the nations a venue to share what they do best. “Each one of them has unique expertise,” Ruggiero said. “They can cover similar areas of interest in terms of domain – for instance, maritime, land, air – but they’re specific in one specific military area and expertise.”

The COEs may not involve every NATO nation, but most represent more than one country, and in some cases, they are joined by partner nations such as Sweden, Finland, Switzerland and Austria.

“Our partners benefit from this sharing of information, and we benefit from them,” Ruggiero said.



A meeting of the NATO Naval Mine Warfare Centre of Excellence, based in Ostend, Belgium. *NMW COE*

Contributing to the Alliance

Ruggiero said the COEs have provided a way for NATO’s post-Cold War member nations to visibly contribute to the alliance.

“A new country could contribute to NATO by hosting a center of excellence, while at the same time raising the flag of NATO in their country,” he said, adding that COEs are an extraordinary

force multiplier for NATO.

“The COEs provide the alliance with a community of nearly 1,000 military and civilian experts that provide their knowledge and experience,” Ruggiero said.

Capt. Robert A. Baughman, USN, mine warfare division director at the U.S. Naval Surface and Mine Warfighting Development Center (SMWDC), presented at the recent conference. He said the NATO NMW COE is analogous to SMWDC as a warfighting development center working on tactics, doctrine development, experimentation and integration of new technologies.

“NATO officers can truly specialize as career mine warfare experts,” Baughman said. “The NATO NMW COE provides a unique opportunity for us to leverage all that institutional knowledge and expertise. They’re also co-located with EGUERMIN, their schoolhouse, and we’re plugged in with both of those organizations.

“We leverage their courses of instruction – specifically the staff officer and principal warfare officer courses, for our warfare tactics instructors training pipeline, and take part in their exercises for staff training. We also participate in the NATO Naval Mine Warfare battle rhythm, conferences and in their working groups,” he said. “Mine warfare is a team sport, so it’s critical for us to understand how our allied and partner mine countermeasures systems work, and to integrate into combined operations to build interoperability.”