

NATO USE OF MASA SWORD IN ITS CENTRE OF EXCELLENCE IN SOFIA, BULGARIA

NATO acquired MASA SWORD in 2016 for training & planning purposes

The NATO Crisis Management and Disaster Response Centre of Excellence (CMDR COE) is located in Sofia in the Republic of Bulgaria. The CMDR COE is a multi-nationally funded institution accredited by NATO. Next to the hosting nation, there are three other sponsoring nations: the Hellenic Republic of Greece, the Republic of Poland and since July 2021 the Republic of Romania.

The CMDR COE performs activities such as education and training, research and analysis, concept and doctrine development, experimental research, concept testing and experimentation, in the area of Crisis Management, Disaster Risk Reduction and Disaster Response. These activities are open to organizations of NATO-countries and its allies.

In order to fulfill its mission - to support and contribute to the enhancement of NATO's crisis management and disaster response capabilities, and to improve the Alliance's interoperability – the CMDR COE developed a state of the art technical platform where SWORD is the cornerstone of the simulation architecture which includes a Command and Control System (C2), virtual simulations, disaster propagation models, historical weather and Standard Operating Procedure databases.

One of the reasons why SWORD was selected for its central role in the CMDR COE's technical platform was the use of Artificial Intelligence which is indispensable for automating scenarios, analyzing contingency plans and calculating different courses of action.

Training and education is mostly used by the CMDR COE to better prepare the emergency services and military units for their disaster response capabilities and for the preparation of the aftermath of a disaster: to reduce human suffering and material damage to the society. Thanks to SWORD, students can immediately see the effects of their decisions and learn from the mistakes they made.

Besides training and education, the CMDR COE leverage its technical platform for experimenting and investigating and testing scenarios: CMDR COE declared that "if SWORD is used within its limits, we can rely on its results". As a recent example, about a year ago the CMDR COE was asked to perform a Risk Assessment and Impact Analysis to evaluate and improve the contingency plans for a hazardous material storage in Krasno Selo in the Sofia metropolitan region. Since this event was also meant to test the communication between the emergency agencies involved, the format that was chosen for the event was an exercise with recordings made of every mission, every event, every move made and every communication.

Several agencies were involved such as the Fire Safety Department and the Civil Protection Service. To provide precise and realistic data the NATO JOINT Chemical Biological Radioactive and Nuclear Center of Excellence (NATO JCBRN COE) from the Czech Republic with their CBRN-propagation simulation and the Bulgarian Air Force Meteorological Center were involved to guarantee a real-to-life result. Their simulation and data were automatically and real-time injected in SWORD. The evacuation of the local population impacted by the chemical agent was managed through another simulation from Polaris and also connected to SWORD. The exercise and assessments were carried out during three days. Since it was based on serious research and preparation, realistic data and predefined mission goals, these three days turned out to be more than worth the time invested.

As a result of the event, adaptations and amendments were made to the contingency plans; communication between the involved agencies has improved; different courses of action have been tested and approved for the future and the population has been comforted in knowing that in the unlikely case of an incident, their emergency agencies are very well prepared.

This event has drawn significant national and international attention and has led to inquiries to the CMDR COE to perform similar events in other parts of the world.

Next to this event, the NATO Crisis Management and Disaster Response Center of Excellence is using SWORD to simulate and analyze the impact of flooding, earth quakes and wild fires. The audience consists of the emergency services or the military or both when there is Civil Military Cooperation (CIMIC) demanded. It really depends on how disaster response is organized. There are a lot of differences per country.

Over the years the cooperation between the NATO CMDR COE and MASA has become tighter. MASA is continuously innovating SWORD and coming up with new functionalities as where the COE brings in an invaluable amount of Subject Matter Expertise and Lessons Learned from the experiments done in their OpsLab.

Follow us!

