

DHS Science and Technology Directorate

NATO/Next Generation Incident Command System Pilot Project

Humanitarian crises: threat to human security

Humanitarian crises, whatever the cause or wherever they occur, have increasingly become threats to human security: a concept that has rapidly emerged in international cooperation and development efforts with the establishment of the U.N. Commission on Human Security in 2001. International relief missions to deal with humanitarian crises and reduce the risks to human security, can present financial and technical challenges.

One of the technical challenges in times of large scale disasters is the lack of interoperability among technology tools used by governments at national, regional and local levels. Not being able to share even the most basic information on the location and scale of disasters can complicate relief efforts. This can make international collaboration – in humanitarian crises response for example – difficult and slow. Seemingly simple problems—such as requesting assistance, establishing optimal locations to set up relief operations and understanding best transportation routes to and from impacted areas—rapidly become complicated. These communications challenges impede the pace of response and recovery operations.

NATO contributes to DHS S&T pilot project

The U.S. Department of Homeland Security (DHS) Science and Technology Directorate (S&T) is pleased to announce four NATO member and partner countries have adapted the Next Generation Incident Command System (NICS) - an S&T-funded communications platform developed in collaboration with the Massachusetts Institute of Technology Lincoln Laboratory (MIT-LL) – thanks to major contribution from NATO Science for Peace and Security (SPS) division. With this partnership, NATO is helping to advance worldwide first responder capabilities through technological exchanges, information sharing, and lessons learned.

NICS offers a solution to interoperability problems by providing situational awareness, information and data sharing and collaboration across multiple organizations throughout all levels of government, including international. Based on an open standards common approach, NICS can enhance existing information-sharing capabilities and be interoperable with existing technology

platforms and databases. NATO is implementing the NICS system and technology in Bosnia and Herzegovina, Croatia, the Former Yugoslav Republic of Macedonia, and Montenegro. This support, in collaboration with DHS S&T, will help meet the international emergency management needs of these countries by providing developmental assistance and technical collaboration. For example, in September 2017, NATO will test the NICS technology during flood and earthquake exercise scenarios in Bosnia Herzegovina as part of the Advanced Regional Civil Emergency Coordination Project (ARCECP). Filling the gaps in the information-sharing process during disasters such as floods is an important priority for the DHS S&T First Responders Group.



Also, in 2016, the Federal Emergency Management Agency asked S&T to create a Flood Apex Program to develop new and emerging technologies to reduce fatalities and property losses from future flood events; increase community resilience to disruptions caused by flooding. Participation with NATO in the ARCECP program is an opportunity for DHS S&T to advance this research agenda through experimentation and international collaboration.

The NATO exercise will illustrate how responders can improve situational awareness and emergency management through science and technology. DHS S&T will gain a deeper understanding of emergency management information-sharing requirements at an international level that will help to inform future research activities.



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To learn more about NATO/NICS, contact first.responder@hq.dhs.gov.