The NATO Science for Peace and Security Programme

CountryFlyer 2022

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Developing Practical Cooperation through Science

Algeria has been engaged with NATO through the Mediterranean Dialogue (MD) since March 2000.

The NATO SPS Programme enables close collaboration on issues of common interest to enhance the security of NATO and partner nations by facilitating international efforts to meet emerging security challenges, supporting NATO-led operations and missions, and advancing early warning and forecasting for the prevention of disasters and crises.

The current SPS Key Priorities include:

- *Counter-Terrorism;*
- *Energy Security;*
- *Cyber Defence;*
- *Defence against CBRN Agents;*
- *Environmental Security;*
- *Security-related Advanced Technology;*
- *Border and Port Security;*
- *Human and Social Aspects of Security*.

Additionally, the SPS Programme helps to promote *regional security* through scientific cooperation among partners. The Programme also helps to *prepare* interested eligible nations for NATO membership. SPS activities often have a high *public diplomacy* value.

ALGERIA

Algeria is cooperating with NATO's Science for Peace and Security (SPS) Programme via the Mediterranean Dialogue (MD) partnership framework. Leading areas for cooperation include **Counter-Terrorism**, **Security-related Advanced Technology, and Defence against CBRN Agents**. Below are some examples of ongoing and completed projects under the framework of the NATO SPS Programme

Cooperative Activities

CRITICAL ENERGY INFRASTRUCTURE PROTECTION: INNOVATIVE STRUCTURES AND MATERIALS FOR BLAST AND BALLISTIC PROTECTION

The main objective of this Advanced Training Course (ATC) was to share knowledge and experience in the protection of critical infrastructures, supplies and personnel. This included all aspects related to risk management, sharing of best practices and deployment of technologies aimed at preventing and responding to terrorist attacks. This activity was particularly relevant for Algerian institutions involved in the operation and protection of oil and gas infrastructures, which are exposed to terrorist attacks. *This ATC was held in Algiers from 22 to 25 March 2021 and was led by experts from Algeria and Poland.* [ref. G5718].

IMPLEMENTATION OF A TERAHERTZ IMAGING AND DETECTION SYSTEM

This Multi-Year Project (MYP) designed and developed a terahertz (THz) imaging and detection system for dangerous materials, for the purpose of securing vulnerable sites from terrorist threats. This project improved the efficiency of existing terahertz imaging and detection systems through THz generation in periodically poled devices. This technological breakthrough has the potential to make important advancements for security applications, such as automatic screening devices for detection of dangerous materials to protect high-security buildings. The screening capabilities of this technology may contribute to the fight against terrorism and, through further research, could also be expanded to other

applications, such as body scanners and environmental monitoring. The results of this project represent a significant step towards applying THz imaging technology in real-life conditions. *This project was completed in 2021 and led by scientists from Algeria, France, and Sweden. A new SPS MYP building on the results of this activity was launched in June 2022.* [ref. G5396]

NATO – AFRICAN UNION COUNTER-TERRORISM CAPACITY BUILDING THROUGH TRAINING AND EDUCATION

Counter-Terrorism (CT) is a common area of interest to both NATO and the African Union (AU). It is an area of potential reinforced cooperation, building on already established NATO collaboration with the African Centre for the Research and Study of Terrorism (ACSRT) and the AU Special Representative for CT Cooperation/Director ACSRT. In the context of NATO's efforts to project stability and to enhance the Alliance's role in the international community's fight against terrorism, this Advanced Training Course (ATC) responded to the AU-identified requirement for counter-terrorism education and training, and supported the AU CT capacity and institutional development through training and education. *This ATC was held April 2019 in Algiers and was led by Algeria and the Defence against Terrorism Centre of Excellence in Ankara, Türkiye.* [ref. G5599].

DESIGNING FIRST RESPONDERS VERSATILE DETECTION AND DECONTAMINATION METHODS (DEFIR)

This MYP is an integrated fundamental study to determine methods for the fast detection of chemical warfare agents and propose means for rapid decontamination with the least possible impact to personnel and the environment. Versatile, portable, user-friendly, all-weather and all-terrain kits will be designed for first responders. These portable broad-spectrum units will allow for the rapid detection and efficient chemical decontamination of personnel and small-scale surfaces. Solving these technological challenges will improve first response and forensics significantly and therefore enhance resilience. *This activity is led by scientists and experts from Algeria and Estonia.* [ref. G5565]