

Developing Practical Cooperation through Science

The former Yugoslav Republic of Macedonia has been actively engaged within the framework of the NATO Science for Peace and Security (SPS) Programme since 2006.

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 forecast 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 Security;*
- *Human and Social Aspects of Security.*
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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.

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA¹

Scientists and experts from the Former Yugoslav Republic of Macedonia* have been engaged in several activities with the SPS Programme. At present, the leading areas for cooperation include **Cyber Defence, Counter-Terrorism, CBRN Defence, and Advanced Technology**. Below are some examples of ongoing and completed activities within the framework of the SPS Programme.

Cooperative Activities

ADVANCED REGIONAL CIVIL EMERGENCY COORDINATION PILOT

Large-scale natural and man-made disasters increasingly call for an international disaster response involving thousands of first responders from various jurisdictions and agencies. Effective collaboration during emergency and disaster response translates to saving lives, reducing loss of property and resources, and protecting the environment.

This flagship project, supported by the SPS Programme and the US Department of Homeland Security, Science & Technology Department, is developing and implementing a system to facilitate the coordination among responders and improve civil emergency management across the Western Balkans. Once in place, the new technology will allow responders to share all kinds of information about an incident, including GPS locations or images, via mobile devices. This will maximise real-time situational awareness and help find a coordinated, appropriate response to natural or man-made disasters [ref. G4968]. *This project is led by experts from Bosnia and Herzegovina, the United States, Croatia, the former Yugoslav Republic of Macedonia¹ and Montenegro.*



A FIELD DETECTOR FOR GENOTOXICITY FROM CBRN AND EXPLOSIVE DEVICES

This project developed a state-of-the-art detector for the fast and accurate recognition of genotoxins emitted in explosions or CBRN attacks. Genotoxins cause damages to the genetic information in a cell, leading to mutations, cancer or birth defects when passed on to the next generation. Therefore, the presence of such toxins on sites of terrorist or military activities has to be detected, measured and quantified in order to assess their hazardous effect on human health. Because of their presence in micro-concentrations these substances usually remain undetected and therefore no countermeasures are taken in order to restrict and clean up the affected areas. Current analytical methodologies depend upon expensive equipment that is restricted to specialized laboratories and requires a high degree of expertise. The main objective of this project is to develop a “ready-to-use” highly sensitive and accurate field-employable device for genotoxicity detection that is user-friendly. The device will be used for routine genotoxicity surveillance of CBRN agents emitted during military and training operations as well as on sites after terrorist attacks [ref. G5266]. *This project is led by experts from the former Yugoslav Republic of Macedonia¹, Bulgaria, Turkey and the United States.*

ENVIRONMENTAL PROTECTION & ENVIRONMENTAL MANAGEMENT IN THE MILITARY SECTOR

Minimizing environmental damage during military operations enhances stability and fosters lasting security. This Advanced Training Course (ATC) increased the capacity of officers and advisors of the military sector to provide environmental protection and to foster interoperability in the area. The course, which took place in April 2015, was a follow-on of a successful ATC held in Bosnia and Herzegovina, at which an expert from FYROM¹ attended [ref. G4897]. *This activity was led by experts from the Ministry of Defence of the former Yugoslav Republic of Macedonia¹ and the Canadian Joint Operations*

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DEFENCE AGAINST TERRORISM: ENHANCING RESILIENCE OF DEMOCRATIC INSTITUTIONS AND RULE OF LAW

This Advanced Research Workshop focused on the contextual opportunities offered by democracies to terrorists groups, focusing on human factors, in order to identify those sectors where democracies have the means to reduce the threats without harming their values, or better enhancing those to the benefit of security of the democratic society as an all. This event aimed at identifying contextual human factors that impact the vulnerabilities of democratic societies against terrorism, and the factors institutions, values and rule of law in the capacities of resilience of democracies [ref.G5401]. *The activity, held in Skopje in April 2018, was led by national experts and scientists from the former Yugoslav Republic of Macedonia¹ and Italy.*



The NATO Science for Peace
and Security Programme

www.nato.int/science

¹Turkey recognises the Republic of Macedonia with its constitutional name.