



21 March 2025

CALL FOR AN EXPRESSION OF INTEREST

RESEARCHERS PARTICIPATING IN NATO EMERGENCY MANAGEMENT EXERCISE "BULGARIA 2025", 7-12 SEPTEMBER 2025

BACKGROUND

- 1. Between 7 and 12 September 2025, Bulgaria will host the 20th NATO Emergency Management Exercise "BULGARIA 2025" (hereafter "the Exercise"). NATO's exercises are among the world's largest and most complex training events in crisis management and disaster response.
- 2. The Exercise will focus on enhancing resilience, improving disaster preparedness, and fostering civil-military cooperation in emergency response. It will bring together participants from NATO Allies, partner nations, and international organisations, to enhance their ability to respond effectively to a large-scale, complex emergency.
- 3. The Exercise is organised jointly by NATO's Euro-Atlantic Disaster Response Coordination Centre (hereafter "the EADRCC") and the Directorate General Fire Safety and Civil Protection (hereafter "DG FSCP") of the Ministry of Interior of Bulgaria, and will take place in the state-of-the art International Training Centre for first responders in Montana, Bulgaria (approximately 150 km from Bulgaria's capital city of Sofia). The factsheet of the Exercise is available at <u>Annex 1</u>.

CALL FOR RESEARCH

- **4.** The EADRCC and the GATE Institute at Sofia University "St. Kliment Ohridski" (hereafter "GATE") are soliciting interest from early-stage and senior researchers to utilise the Exercise for research purposes and gather empirical data to inform their research efforts.
- **5.** Given the expanded lead-in scenario of the Exercise (at Annex 2) and the Exercise sites (at Annex 3), a non-exhaustive list of **potential topics of research** includes:
 - Crisis management, disaster response;
 - Early-warning mechanisms, risk assessment, forecasting;
 - Civil protection, protection of critical infrastructure; resilience;
 - Civil-military cooperation, defence support to civil authorities;
 - Decision-making, group behaviour, group think;

- Logistics, transport, mass movement of people;
- Crisis communications, strategic communications;
- Hybrid threats, information threats, psychological operations;
- International cooperation in emergency management.
- **6.** Regarding **empirical data collection**, qualitative and quantitative methods include but are not limited to:
 - Observation: researchers could observe the Exercise by wearing insignia;
 - Interviews: researchers could conduct interviews with Exercise participants; that is, researchers would be allowed to collaborate with Exercise participants;
 - Surveys: researchers could conduct prior- or post-Exercise surveys and questionnaires;
 - Sensor: researchers could gather sensor data, given they supply the sensor; A
 decision on whether any sensor could be used would be made on a case-by-case
 basis:
 - Testing ground: researchers could test prototypes of innovative technologies for disaster responses (including both physical tools and software products);
- **7.** Any interviews, questionnaires and surveys must comply with the principles and requirements of the General Data Protection Regulation (Regulation (EU) 2016/679).
- **8.** Participating researchers will need to go through their own university or institute channels of obtaining an ethics approval.

POST-EXERCISE

- 9. Participating researchers are free to use the gathered raw empirical data for their research. They also retain full intellectual property rights over any research output based on such data. There are no NATO-imposed restrictions on sharing or using the gathered data, however it would be appreciated if research includes reference to the NATO EMERGENCY MANAGEMENT EXERCISE "BULGARIA 2025" as the site of the field work.
- **10.** Participating researchers may be asked to share their raw empirical data with the EADRCC and GATE for research purposes, on a royalty-free basis.
- **11.** Participating researchers may be invited to present their research findings during the post-Exercise Lessons Learnt Conference in Spring 2026, which will take place in Sofia, Bulgaria. The specific dates of the Conference as well as the format of the research findings will be communicated at a later date.

REQUIREMENTS

- **12.** Participating researchers must be nationals of a NATO Ally or partner country. A list of NATO Allies and partners is available on the NATO website.
- **13.** Participating researchers must be employed by an institution based in a NATO Ally or partner country.

- **14.** Participating researchers would usually have an advanced degree, such as a PhD, in a field related to the lead-in scenario of the Exercise.
- **15.** Participating researchers must self-fund or secure institutional budget to cover their expenses (e.g. travel and accommodation in Montana, Bulgaria) for the Exercise.

HOW TO APPLY

- **16.** Please submit to ivanov.martin@hq.nato.int and borislav.bankov@gate-ai.eu by 15 May a research proposal of less than 250 words, specifying your research question and data collection methods. Please outline the scientific contributions and practical applications of your expected research findings, as well as any other relevant information. Please also include the required information regarding your nationality and the institution where you are based.
- 17. Successful applicants will be invited to participate in the Exercise by end of May 2025.
- **18.** For any queries, please contact <u>ivanov.martin@hq.nato.int</u> and <u>borislav.bankov@gateai.eu</u>.

Annex 1: Factsheet of the Exercise

Annex 2: Lead-in Scenario of the Exercise

Annex 3: Sites of the Exercise

www.nato.int/eadrcc

Factsheet

December 2024

Better prepared for disasters and crises NATO Emergency Management Exercise "BULGARIA 2025"



The Euro-Atlantic Disaster Response Coordination Centre (EADRCC) is NATO's mechanism for responding to civil emergencies, including disasters, technological incidents, and acts of terrorism.

To support emergency preparedness and resilience, the EADRCC organises regular consequence management exercises on behalf of NATO. There, civil protection actors (civilian and military) work together to improve their ability to respond to a wide range of crises, manage the consequences of disasters and build up their resilience.

EADRCC exercises are among the world's largest and most complex multinational activities in the field of emergency management. Allies and partners are invited to participate, and so are relevant International Organisations, researchers and innovators.

Bulgaria 2025

The 20th NATO Emergency Management will take place in Bulgaria from 7 to 12 September 2025. It is organised jointly by the EADRCC and the Ministry of Interior of Bulgaria, and will take place in the state-of-the art International Training Centre for first responders in Montana (some 150km from Bulgaria's capital Sofia).

This complex exercise will focus on enhancing resilience, improving disaster preparedness, and fostering civil-military cooperation in emergency response. It will bring together participants from NATO Allies, partner nations, and international organizations, to enhance their ability to respond effectively to a large-scale, complex emergency.

How to engage

Allies, partners and international organisations are welcome to use NATO Exercise BULGARIA 2025 to test and validate their response plans, procedures and capabilities, to test border-crossing in an emergency, and to improve interaction. They should identify the assets they plan to exercise and determine the disciplines in which they want to participate.

For any questions, please reach out to:

Katrien Vanhamme, Exercise Director (Vanhamme.Katrien@hq.nato.int), Martin Ivanov, Deputy Exercise Director (Ivanov.Martin@hq.nato.int).



Map of Bulgaria with the exercise location

Objectives

The primary objectives of NATO Emergency Management Exercise "BULGARIA 2025" are:

- Build resilience and interoperability through improved disaster preparedness, planning, prevention and response, and strengthen the capability of NATO Allies and partners to manage complex emergencies and respond to security challenges, including climate change and hybrid threats.
- 2. Exchange of knowledge and good practices on the coordination and response capacities of the participating states and organizations.
- 3. Build up cooperation between civilian and military actors in responding to a range of crises.
- Encourage cooperation between Allies and partners, and with NATO, including by on facilitation of vital civil cross-border transport.



NATO's most recent emergency management exercise took place in North Macedonia in 2021

- 5. Contribute to NATO's defence capacity-building support to partners.
- 6. Test and improve Bulgaria's host nation support capacities.
- 7. Send a public signal to audiences in Allied and partner countries about the value of cooperation through NATO.

The specific exercise objectives are shaped by the participating countries and organisations, in line with their needs and training priorities. The planning conferences and exercise preparation work are essential for potential participants to share their needs and priorities.

The exercise scenario is developed to meet all participants' objectives. In line with those, the scenario can include different disciplines, e.g. search and rescue, response to Chemical, Biological, Radiological and Nuclear attacks, water rescue, large scale population movements, etc.

The details of participation, scenarios and matching training objectives to realistic challenges are ironed out during planning conferences ahead of the exercise.

Organisation

EADRCC exercises have five phases: inception, concept, planning, execution and evaluation. The latter three phases cover approximately one calendar year.

Exercise BULGARIA 2025 is in the planning phase. A Core Planning Team leads the planning, scenario development, conduct and evaluation of the exercise. It consists of 45 experts from 14 countries brought together by NATO and the host nation.

The Core Planning Team is currently working to align the requirements of the host nation and participants, and develop the scenario.

Two planning conferences are organised for the prospective participants:

- 14-17 January 2025 in Sofia, Bulgaria
- 20-22 May 2025 in Sofia, Bulgaria

The exercise conduct (including field operations) is schedule for 7-12 September 2025.

All aspects of the exercise will be evaluated and discussed in a post-exercise Lessons Identified Conference, in early 2026.

Lead-in Scenario

The initial scenario trigger is a major earthquake, followed by secondary emergencies in the vicinity of Montana. The participants will face fictitious but realistic challenges, including information manipulation and disinformation, complications related to climate change, population movements, etc.

The full scenario will be developed in the months prior to the exercise conduct.

Disciplines

The exercise will feature a range of emergency response disciplines, including:

- Civil-Military Cooperation
- Host nation support
- Urban search and rescue (USAR), including cultural heritage preservation, and rope rescue
- Water search and rescue (WSAR)
- Chemical, radiological and nuclear incident management
- Emergency medical response, including EMT-1 (fixed and rolling) and EMT-2 capabilities
- Information threats and media relations
- Possible other participant-initiated disciplines



The Montana training centre

Conduct

The value of the exercise extends beyond operational training. It offers a platform for knowledge sharing, enabling participants to gain insights into effective emergency management strategies through shared experiences and expertise. By strengthening cooperation among national and international entities, the exercise enhances interoperability and readiness for disasters. The exercise also supports resilience building by helping participating nations meet NATO's Baseline Requirements and fosters regional collaboration to manage cross-border emergencies.

Here is why you should join

NATO Emergency Management Exercise BULGARIA 2025 will bring together hundreds of professionals to respond to today's disruptions and tomorrow's threats, and build future resilience.

The exercise will be an essential training and networking opportunity. It will enable regional cooperation in emergencies, civil-military interactions in a wide range of crises, logistics coordination and leveraging the latest technologies in disaster response.

Participants will benefit from immersive training challenges and an exchange with counterparts and seasoned experts from other countries and organisations.

At a time of complex crises, sharing resources, strategies and experiences and working collectively to find solutions, benefits practitioners, policy makers and leaders at every level.

Financial aspects

The costs of organising the exercise shared by NATO and the Host Nation. Participating nations and organisations cover their own costs related to the exercise. NATO funds may be available to support the participation of teams from eligible partner nations.

More information

https://eadrcc.cmdrcoe.org/

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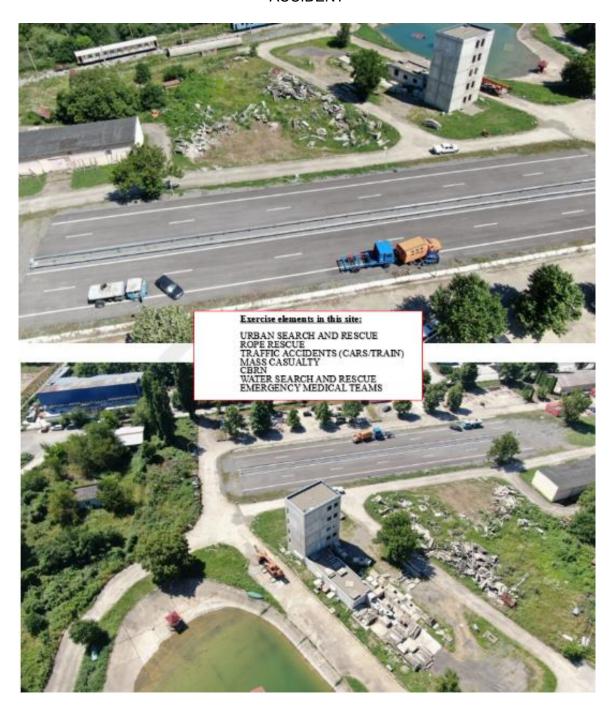
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WORKING SITES

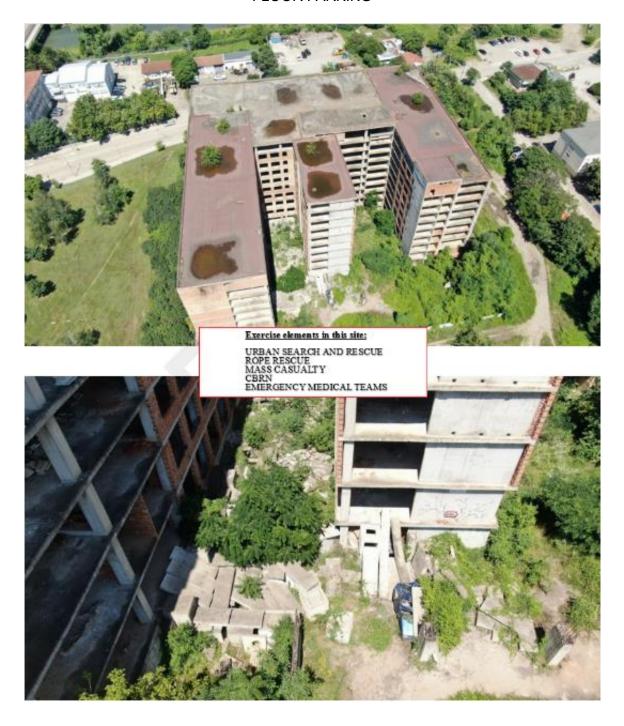
DISASTER CITY (43.40849, 23.24089)

DESTROYED MULTI-STORY BUILDING, SHOPPING CENTER AND COMPLETELY DESTROYED SHOPS, COMMUNITY CENTER, HIGHWAY ACCIDENT AND TRAIN ACCIDENT



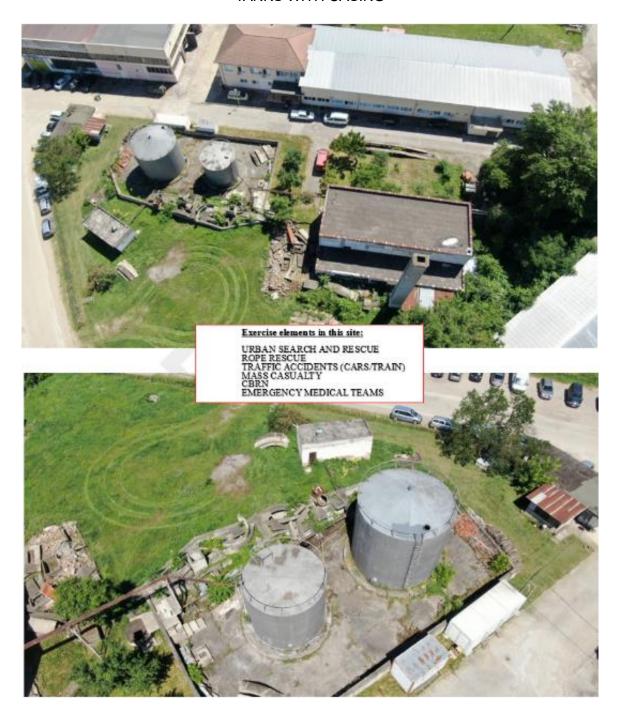
HOTEL INTERNATIONAL (43.40197, 23.23391)

DESTROYED MULTI-STORY HOTEL BUILDING, SUMMER RESTAURANT AND TWO FLOOR PARKING



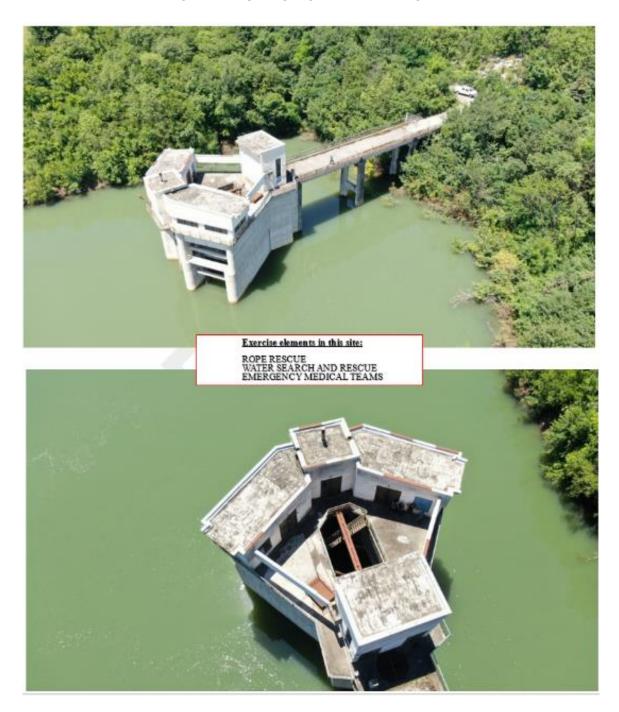
NEOCHIM PLANT (43.40666, 23.23704)

DESTROYED CHEMICAL PLANT WITH UNDERGROUND LEVEL, SURROUNDINGS AND TANKS WITH CASING



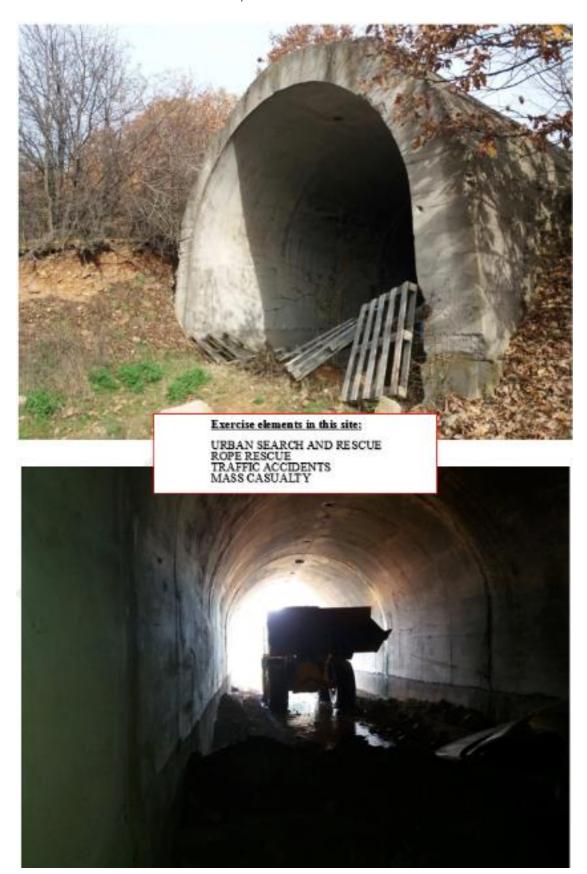
WATER TOWER OF OGOSTA DAM (43.40048, 23.20364)

ACTIVATED LANDSLIDE OVER PARKING, DESTROYED HUT AND STORAGE BUILDING, WORKERS USING ROPES AT THE TOWER



THE TUNNEL IN THE VILLAGE OF ERDEN (43.49654, 23.30185)

COLLAPSED TUNNEL, CAR ACCIDENTS WITH PEOPLE TRAPPED



EXPANDED LEAD-IN SCENARIO FOR THE NATO EMERGENCY MANAGEMENT EXERCISE "BULGARIA 2025"

ΔΙΜ

To lead the participants into the exercise scenario by providing context and background, and illustrating some of the complex challenges they will need to respond to in Exercise BULGARIA 2025.

The scenario will continue to evolve until and during the exercise. The detailed scenario will be controlled by the DISTAFF and used for detailed injects into the exercise play.

OBJECTIVES

Increase participants' awareness of a complex hybrid emergency.

Challenge a variety of international responders at the strategic and operational levels to tackle a wide range of simultaneous, complex emergencies, in a coordinated way.

Promote discussions on NATO's role in supporting Allies and partners in countering complex threats over short and mid-term periods.

Demonstrate the need for close international cooperation on complex threats to civilian populations, and familiarize participants with different toolboxes available for response (possibilities and limits).

BACKGROUND1

Bulgaria is situated in a region that is particularly vulnerable to temperature increase, extreme precipitation and to the increased frequency of extreme weather events, such as droughts and floods.

According to research conducted by the Department of Meteorology, National Institute of Meteorology and Hydrology at the Bulgarian Academy of Sciences (NIMH-BAS), annual air and water temperature is increasing; rainfall patterns are also changing, reducing overall precipitation and the total water reserves of the country. Furthermore, there is a trend toward increased frequency of extreme events and disasters, as demonstrated by frequent occurrences of heavy rainfalls, heat and cold waves, floods and droughts, windstorms, forest fires, and landslides.

The risks inflicted by these events lead to loss of human life or cause considerable damage, both nationally and transboundary. These changes affect society and its citizens as well as the economy as a whole. The risk is greater for the segments of the society that are poorer, less prepared and more vulnerable – like in the region of Montana, where the population includes sizeable vulnerable groups (older people, poorer people, smokers) who are in a less favourable position than the rest of the country. They are exposed to health effects, including heat-related health risks, cardiovascular diseases and strokes in summer (especially in urban heat islands), and emergency weather-related health effects.

The impacts of extreme weather events are exacerbated by the region's infrastructure, which is not adapted to temperature extremes and cannot withstand extreme weather, notably floods and landslides. The most vulnerable infrastructure is the national road network, including

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¹ Source: National Climate Change Adaptation Strategy and Action Plan

roads and engineering structures such as bridges. Railway infrastructure in the Montana region is also vulnerable, especially in summer, when extreme heat can cause rain buckling and disruption of operations. These challenges may cause sudden and long-lasting disruptions of operation and restricted accessibility to the population and emergency responders.

Bulgarian citizens indicate high trust in the national authorities' capacities to respond to emergencies2. However, natural disasters and complex emergencies are increasingly exploited by adversaries as part of a hybrid toolbox to influence public opinion in Bulgaria and other NATO Allies and European Union Member States. This aims to destroy unity among Allies, test nations' resolve to support each other, destabilise the domestic situation in Allied nations and nurture a feeling of insecurity, divide public opinion and destroy citizens' trust in the national institutions' capacity to cope with security challenges.

LEAD-IN

The region of Montana (and most of Bulgaria) is affected by an extreme prolonged heatwave since mid-July (E-60), with temperatures exceeding 40°C (104°F).

The power grid is overloaded due to the widespread use of air-conditioning to cope with the heat. At the same time, low levels of water in the Danube River have reduced the output of Bulgaria's power plants in Kozloduy to 60%, as there is not enough cooling water for full power.

Hospitals in the region are treating a lot of people with heat-related complaints, including heat stroke, dehydration, hypertension. Most of these are elderly and children.

As of 5 September (E-3), a low-pressure area is developing over the region of Vidin and western parts of the region of Montana. The national Met Office issued severe weather (heavy rain) warnings for Vidin and the western part of Montana.

On 6 September (E-2) at 06:19 local time (CET+1), an earthquake of 7.2 Moment Magnitude scale (M_w) occurred in Bulgaria.

This has caused severe damage to the Municipality of Montana (110km north of Sofia) and the region. Strong aftershocks have been recorded and are causing subsequent damage and chaos. There are unconfirmed reports that the earthquake has damaged the Kozloduy Nuclear Power Plant (75km from the epicentre), which is leaking radiation.

REQUEST FOR INTERNATIONAL ASSISTANCE

Following the devastating earthquake on September 6^{th} 2025 0619 UTC with a magnitude of 7.2 on the Moment Magnitude scale (M_w) in Montana, and in anticipation of extreme precipitation in the region in the day ahead, Bulgaria is requesting international assistance through international mechanisms, including NATO's Euro-Atlantic Disaster Response Coordination Centre (EADRCC) as well as the EU Civil Protection Mechanism.

In their request, the Bulgarian authorities are reporting the following situation:

A significant number of buildings have been damaged, including several hospitals / medical centres. The number of victims is not yet known, but up to 12000 persons may be affected. Roads and train tracks have been severely damaged, and the population trying to leave the zone are stuck on various roads.

Many aftershocks still cause subsequent damage, and the population is afraid to reenter their houses.

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² Source: <u>Eurobarometer</u>, September 2024

Water supply, electricity and communication means are severely affected and for the most part not operational. A suspended airport in the area may have been damaged, it is unclear if there is a possibility of reopening the airfield and use it as a possible entry for assistance.

The national Met Office issued severe weather (heavy rain) warnings for the region; flash floods can be expected.

Requested assistance:

- USAR teams
- CBRN teams
- Medica teams
- Water rescue teams
- Water purification and distribution
- Communications equipment to reestablish a radio backbone communication network
- Mobile generators
- Possibility for cooling zones next to hospitals or elderly people's homes.
- Shelter for displaced victims
- Assessment capabilities to inspect a dam underwater
- Assessment to advise on stabilization of cultural heritage as Roman ruins and old excavations
- Capabilities for aerial and underwater video assessment (drones)
- Airfield and forward air traffic controller capabilities (if BG agrees)
- Mobile air conditioning units to establish cool zones in shelters, hospitals and homes for elderly.

The NATO EADRCC is in close contact with the Bulgarian authorities to obtain further updates. Bulgaria will suggest points of entry following further assessment of road conditions leading into the stricken area.