

INTERREG-IPA CROSS-BORDER COOPERATION
PROGRAMME
ROMANIA-SERBIA

SEARCH AND RESCUE MISSIONS

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Search and rescue missions

- Search and rescue missions refer to organized efforts to locate, assist, and retrieve individuals or groups who are in distress or in life-threatening situations. These missions are typically undertaken by various emergency response teams, such as search and rescue (SAR) units, law enforcement agencies, fire departments, and other specialized teams. The primary goal of these missions is to locate and provide aid to individuals who are lost, injured, trapped, or stranded in remote or hazardous environments.

Key elements of search and rescue missions

1. Search Phase: The initial phase involves gathering information about the missing persons, including their last known location, description, and any relevant circumstances. Search teams may employ various techniques such as grid searches, K9 units, drones, and aerial searches to cover large areas effectively.

2. Rescue Phase: Once the missing individuals are located, the rescue phase begins. Trained personnel or specialized teams are deployed to access and retrieve the victims, providing necessary medical assistance and support.

Key elements of search and rescue missions

3. Coordination and Command: Search and rescue missions require careful coordination between different teams and agencies. Incident Command Systems (ICS) are often implemented to ensure effective communication, resource allocation, and decision-making during complex operation

4. Technology and Equipment: Search and rescue missions rely on advanced technology and equipment to enhance efficiency and safety. This may include GPS devices, satellite communication systems, thermal imaging cameras, and medical equipment.

Key elements of search and rescue missions

5. Hazards and Risks: Search and rescue missions can be perilous for the responders as well. Rescuers must navigate through challenging terrain, adverse weather conditions, and hazardous environments to reach the victims.

6. Types of Search and Rescue Missions: These missions can vary widely depending on the situation, including wilderness rescues, urban search and rescue (USAR) in collapsed buildings, maritime search and rescue, and air search and rescue.

7. Volunteers and Professional Teams: Search and rescue operations may involve both volunteer organizations, like mountain rescue teams or community-based groups, as well as professional rescue teams employed by government agencies.

Types of search and rescue teams

- 1. Wilderness Search and Rescue Teams** are trained to conduct search and rescue operations in remote and rugged terrains, such as forests, mountains, deserts, and national parks. They are skilled in wilderness survival and navigation techniques.
- 2. Urban Search and Rescue (USAR) Teams** are specialized in responding to emergencies in urban areas, including collapsed buildings, structural collapses, and other disasters that occur in densely populated settings. They are equipped with specialized equipment like listening devices, cameras, and heavy machinery for debris removal.

Types of search and rescue teams

3. Maritime Search and Rescue Teams operate in coastal areas and open waters to rescue people involved in boating accidents, shipwrecks, or other maritime emergencies. They may include coast guard units and maritime rescue organizations.

4. Aerial Search and Rescue Teams use helicopters, airplanes, or drones to locate and assist individuals in distress in large or hard-to-reach areas. They can be particularly effective in wilderness and maritime environments.

5. K9 Search and Rescue Teams work with specially trained search and rescue dogs to locate missing individuals, whether in wilderness, urban, or disaster settings. Search and rescue dogs have a keen sense of smell and can cover large areas quickly.

Types of search and rescue teams

6. Mountain Rescue Teams are specialized in responding to emergencies in mountainous regions, where steep terrain, harsh weather, and altitude-related challenges make rescues particularly demanding.

7. Cave Rescue Teams are trained to enter and navigate through caves to locate and rescue individuals who may be trapped or injured underground.

8. Disaster Search and Rescue Teams are deployed during large-scale disasters such as earthquakes, hurricanes, or tsunamis. They are equipped to handle various scenarios and provide specialized assistance in disaster-stricken areas.

Types of search and rescue teams

9. Swiftwater and Flood Rescue Teams are skilled in rescuing individuals from fast-moving water, such as rivers and floodwaters. They use specialized equipment like boats, ropes, and personal protective gear.

10. Underwater Search and Rescue Teams are trained to locate and retrieve individuals from underwater environments, such as lakes, rivers, or coastal waters. They may include divers and specialized equipment for underwater operations.

- The International Search and Rescue Advisory Group (INSARAG) Guidelines are endorsed as the primary reference for coordinating international Urban Search and Rescue (USAR) response by the United Nations (UN) General Assembly Resolution 57/150 dated 16 December 2002. These guidelines outline the approach that countries impacted by a sudden onset disaster can anticipate from the INSARAG USAR response community. International USAR responders are trained and equipped to apply this established methodology during operations, offering aid during international USAR response missions.

Classification of USAR teams

- INSARAG USAR Teams are mandated to include five key components: Management, Search, Rescue, Logistics, and Medical. The INSARAG Guidelines categorize capacity into three levels: Light, Medium, and Heavy.

Classification of USAR teams

- **Light USAR Teams**
- 5 components mandated by the INSARAG Guidelines: Management, Logistics, Search, Rescue, and Medical.
- are equipped to carry out search and rescue operations in collapsed or failed structures made of wood and/or unreinforced masonry, including structures reinforced with steel mesh.
- skilled in rigging and lifting operations.

Classification of USAR teams

• Light USAR Teams

- the key features of a Light USAR Team
 - Capable of operating at a single worksite only.
 - Must have the ability to conduct search operations using search dogs and/or technical search methods.
 - Adequately staffed for 12-hour operations at one site (sites may change) for up to five days.
 - Required to ensure medical care for their team members (including search dogs if present) and any victims they encounter, subject to permission from the government of the affected country.

Classification of USAR teams

• Medium USAR Teams

- 5 components required by the INSARAG Guidelines, i.e. Management, Logistics, Search, Rescue and Medical.
- can conduct technical search and rescue operations in collapsed or failed structures of heavy wood and/or reinforced masonry construction, including structures reinforced with structural steel. They must also conduct rigging and lifting operations.

Classification of USAR teams

- **Medium USAR Teams**

- the main differences between a Medium Team and a Heavy Team include the following:
 - ✓ Is required to have the capacity to work only at a single worksite.
 - ✓ Is required to have the capability of search dogs and/or technical search, and
 - ✓ Must be adequately staffed to allow for 24-hour operations at one site (the sites may change) for up to seven days.
 - ✓ Must be able to ensure medical care of its Team members (including search dogs if present) as well as victims encountered if allowed to do so by the government of the affected country

Classification of USAR teams

- **Heavy USAR Teams**

- possess advanced operational capabilities for complex technical search and rescue operations in collapsed or failed structures.
- their expertise includes cutting, breaking, and breaching steel-reinforced concrete structures, as well as utilizing lifting and rigging techniques to delayer such structures.

Classification of USAR teams

- **Heavy USAR Teams**
- the primary differences between a Heavy Team and a Medium Team are as follows:
 - Required to have the necessary equipment and personnel to work with a high technical capability at 2 separate worksites simultaneously. A separate worksite refers to any area that demands the USAR Team to relocate staff and equipment, entailing separate logistical support. Typically, such assignments would last for more than 24 hours.
 - Must have both search dog and technical search capabilities. Should possess the technical capability to cut structural steel commonly used in the construction and reinforcement of multi-storey structures.
 - Must be sufficiently staffed and equipped logistically to enable 24-hour operations at 2 independent sites for up to 10 days.
 - Obligated to ensure medical care for their team members (including search dogs if present) and any victims they encounter, subject to permission from the government of the affected country.

USAR response cycle



USAR response cycle

1. Preparedness

- The preparedness phase encompasses the time between disaster responses.
- USAR Teams engage in preparatory actions to ensure their utmost readiness for deployment. These measures include conducting training and exercises, analyzing lessons learned from past experiences, updating Standard Operating Procedures (SOPs) as necessary, and strategizing for future responses.

USAR response cycle

2. Mobilisation

- The mobilisation phase refers to the time immediately after a disaster occurs. During this phase, international USAR Teams ready themselves to respond and travel to provide assistance in the affected country.
- **Activation and Deployment:** The response cycle begins with the activation of international USAR teams by the affected country or through international assistance mechanisms. Upon receiving the request, teams are deployed to the disaster-affected area, either directly or through coordination with relevant authorities and organizations.

USAR response cycle

3. Operations

- The operations phase encompasses the period during which international USAR Teams carry out their USAR operations in the affected country. It commences with the team's arrival at the Reception/Departure Centre (RDC) within the affected country, where they register with the UCC/OSOCC and report to the Local Emergency Management Agency (LEMA) or National Disaster Management Authority (NDMA). During this phase, the teams actively engage in performing USAR operations. The phase concludes when the USAR Team receives instructions to cease their operations.

USAR response cycle

3. Operations

- **Assessment and Coordination:** Once on-site, the international USAR teams conduct initial assessments to understand the scope and nature of the disaster. They coordinate with local authorities, humanitarian agencies, and other response teams to ensure a well-coordinated effort.
- **Search and Rescue Operations:** The USAR teams begin search and rescue operations to locate and extricate survivors trapped in collapsed structures or other hazardous environments. They use specialized equipment and techniques to safely access and evacuate victims.
- **Medical Care and Support:** As part of the response, international USAR teams provide medical care and support to survivors and their team members. This may involve providing first aid, stabilizing injured individuals, and arranging medical evacuations as necessary.

USAR response cycle

3. Operations

- **Logistics and Resource Management:** During the response, USAR teams manage their resources efficiently to ensure they have the necessary equipment, supplies, and personnel for sustained operations. They establish logistics systems to support their activities effectively.
- **Incident Command and Communication:** Incident Command Systems (ICS) are established to manage the response effort efficiently. USAR teams maintain effective communication with local authorities, other response teams, and their home countries for coordination and reporting.
- **Recovery and Handover:** As search and rescue operations progress, the focus shifts to recovery efforts. The teams work to retrieve bodies and provide dignified handling and closure for families. Once the mission is complete, a formal handover to local authorities or other follow-up teams takes place.

USAR response cycle

4. Demobilisation

- **Debriefing and Demobilization:** After completing the response mission, USAR team members undergo debriefing to share their experiences and lessons learned. Demobilization procedures are implemented, and the teams return to their home countries or prepare for any follow-up missions if required.
- **Post-Mission Evaluation:** Following the response, a post-mission evaluation is conducted to assess the effectiveness of the USAR operation and identify areas for improvement in future responses.



Thank you!