OCHA
INSARAG Secretariat
United Nations Office for the Coordination of Humanitarian Affairs

INSARAG

UNITED NATIONS

OFFICE FOR THE COORDINATION OF HUMANITARIAN AFFAIRS

Field Coordination Support Section (INSARAG Secretariat)

INSARAG GUIDELINES AND METHODOLOGY

FOREWORD BY THE INSARAG CHAIRMAN

Since the creation of INSARAG in 1991, significant progress has been made in improving standards for USAR assistance and the coordination of international response to major sudden-onset disasters. The achievements of INSARAG include the establishment of a worldwide network of stakeholders in disaster response and the development of the INSARAG Guidelines. The commitment of INSARAG member countries and organisations is best illustrated by the UN General Assembly's unanimous adoption of Resolution 57/150 on "*Strengthening the Effectiveness and Coordination of International Urban Search and Rescue Assistance*" on 16 December 2002. This Resolution endorses the INSARAG Guidelines to be used as the reference for international USAR and disaster response.

The INSARAG Guidelines have been prepared by USAR responders around the world to guide international USAR teams and disaster-prone countries to perform disaster response operations during major disasters. The Guidelines are a living document that will be improved whenever lessons are learned and best practices identified in the evaluation of international disaster response operations.

I encourage all disaster-prone and responding countries to participate in INSARAG activities and assist in shaping INSARAG methodology to be even more effective to assist the victims of disasters. I also encourage all INSARAG members to adopt the INSARAG Guidelines as an integral part of their national disaster management framework.

I should like to thank all countries and organisations that have supported INSARAG since its establishment and have contributed to the development of the INSARAG Guidelines and the creation and adoption of General Assembly Resolution 57/150.

Toni Frisch, Switzerland
INSARAG Chairman

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A PREFACE

A1 Introduction

1. The Field Coordination Support Section (FCSS) of UN OCHA, which is the seat of the INSARAG Secretariat, has facilitated the development of the INSARAG Guidelines and Methodology by the member States and organisations of INSARAG. The Guidelines are intended as a reference guide for international urban search and rescue operations for countries aiming to establish USAR capacity, as well as for established USAR teams. Furthermore, the Guidelines are not an authoritative instruction but rather detailed recommendations based on an accumulation of institutional memory and experience related to international USAR response as seen in the scope of the INSARAG terms of reference. The use of the INSARAG Guidelines has been endorsed by the UN general Assembly Resolution 57/150 of 16 December 2002 “Strengthening the Effectiveness and Coordination of international USAR Assistance”.

2. The INSARAG Guidelines and Methodology have been developed in cooperation between numerous actors who have gained invaluable experience in developing domestic USAR capability, responding to major domestic USAR incidents and responding to international USAR incidents. Lessons learned from these efforts resulted in the development of the INSARAG Guidelines and Methodology, which will continue to evolve as experience is gained from future disaster response and preparedness exercises.

A2 Background

1. INSARAG was formed in 1991, as a cooperative effort by countries that are either prone to earthquakes or disasters that may cause structural collapse, or countries and organisations that are providers of international USAR assistance, the UN, IFRC and other international responders.

2. In periods between disasters, INSARAG aims to increase awareness in international USAR response. This is achieved through training and the facilitation of exercises designed to evaluate a country's ability to deal with a disaster that exceeds its local capacity and therefore requires international assistance. Furthermore, INSARAG, in conjunction with its partners, will continue to develop international USAR best practice and international relationships.

3. During times of disaster, affected and responding countries apply the INSARAG methodology, which ensures USAR teams understand the roles and responsibilities of LEMA and are able to integrate effectively, resulting in a coordinated and efficient rescue effort.

4. INSARAG activities are designed to improve emergency preparedness including strengthening the cooperation between international USAR teams and the exchange of information on operational procedures and lessons learned.

5. Any comments on the INSARAG Guidelines and Methodology or proposals for improvements can be addressed to FCSS, Emergency Services Branch, UN OCHA, Geneva.

A3 UN General Assembly Resolution 57/150 of 16 December 2002

RESOLUTION ADOPTED BY THE GENERAL ASSEMBLY

[*without reference to a Main Committee (A/57/L.60 and Add.1)*]

57/150. Strengthening the effectiveness and coordination of international urban search and rescue assistance

The General Assembly,

Reaffirming its resolution 46/182 of 19 December 1991, the annex to which contains the guiding principles for strengthening the coordination of humanitarian assistance of the United Nations system, and its resolutions 54/233 of 22 December 1999, 55/163 of 14 December 2000, 56/103 of 14 December 2001 and 56/195 of 21 December 2001, and recalling agreed conclusions 1998/1[1] and 1999/1[2] of the Economic and Social Council and Council resolution 2002/32 of 26 July 2002,

Taking note of the report of the Secretary-General on international cooperation on humanitarian assistance in the field of natural disasters, from relief to development,[3]

Deeply concerned by the increasing number and scale of disasters, resulting in massive losses of life and property worldwide, as well as their long-term consequences, especially severe for developing countries,

Reaffirming that the sovereignty, territorial integrity and national unity of States must be fully respected in accordance with the Charter of the United Nations and, in this context, humanitarian assistance should be provided with the consent of the affected country and, in principle, on the basis of an appeal by the affected country,

Reaffirming also that each State has the responsibility first and foremost to take care of the victims of natural disasters and other emergencies occurring on its territory and, hence, the affected State has the primary role in the initiation, organisation, coordination and implementation of humanitarian assistance within its territory,

Recognising the importance of the principles of neutrality, humanity and impartiality for the provision of humanitarian assistance,

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[1] *Official Records of the General Assembly, Fifty-third Session, Supplement No. 3* and corrigendum (A/53/3 and Corr.1), chap. VII, para. 5.

[2] Ibid., *Fifty-fourth Session, Supplement No. 3* (A/54/3/Rev.1), chap. VI, para. 5.

[3] A/57/578.

Emphasising the responsibility of all States to undertake disaster preparedness and mitigation efforts in order to minimise the impact of disasters,

Noting the critical role played by local rescuers in natural disaster response as well as existing in-country capacities,

Emphasising the importance of timely, coordinated and technically sound international assistance provided in close coordination with the receiving State, in particular in the field of urban search and rescue following earthquakes and other events resulting in structural collapse,

Noting with appreciation, in this respect, the important contribution made by international urban search and rescue teams in the aftermath of disasters, which has helped to reduce loss of life and human suffering,

Commending the work of the United Nations Disaster Assistance and Coordination teams in facilitating rapid need assessments and assisting Member States to organise the on-site coordination of international urban search and rescue operations,

Concerned at the procedural requirements applicable to the movement of foreign nationals and equipment to and within a country that may impinge on the timely acceptance, deployment to the disaster site and activities of international urban search and rescue teams,

Also concerned that an additional burden may be placed on the resources of the affected countries by those international urban search and rescue teams which are inadequately trained or equipped,

Noting the efforts made by Member States, facilitated by the Office for the Coordination of Humanitarian Affairs of the Secretariat to improve efficiency and effectiveness in the provision of international urban search and rescue assistance,

Noting also that the International Federation of Red Cross and Red Crescent Societies is identifying the current state of international law relating to disaster response for a report to be submitted to States and national Red Cross and Red Crescent societies at the International Conference of the Red Cross and Red Crescent in December 2003, and emphasising the need for intergovernmental oversight of this process, particularly with regard to its principles, scope and objectives,

Recognising, in this regard, the Guidelines developed by the International Search and Rescue Advisory Group, as a flexible and helpful reference tool for disaster preparedness and response efforts,

1. *Stresses* the need to improve efficiency and effectiveness in the provision of international urban search and rescue assistance, with the aim of contributing towards saving more human lives;

2. *Encourages* efforts aiming at the strengthening of the International Search and Rescue Advisory Group and its regional groups, particularly through the participation in its activities of representatives from a larger number of countries;

3. *Urges* all States, consistent with their applicable measures relating to public safety and national security, to simplify or reduce, as appropriate, the customs and administrative procedures related to the entry, transit, stay and exit of international urban search and rescue teams and their equipment and materials, taking into account the Guidelines of the International Search and Rescue Advisory Group, particularly concerning visas for the rescuers and the quarantining of their animals, the utilisation of air space and the import of search and rescue and technical communications equipment, necessary drugs and other relevant materials;

4. *Also urges* all States to undertake measures to ensure the safety and security of international urban search and rescue teams operating in their territory;

5. *Further urges* all States that have the capacity to provide international urban search and rescue assistance to take the necessary measures to ensure that international urban search and rescue teams under their responsibility are deployed and operate in accordance with internationally developed standards as specified in the Guidelines of the International Search and Rescue Advisory Group, particularly concerning timely deployment, self-sufficiency, training, operating procedures and equipment, and cultural awareness;

6. *Reaffirms* the leadership role of the United Nations Emergency Relief Coordinator in supporting the authorities of the affected State, upon their request, in coordinating multilateral assistance in the aftermath of disasters;

7. *Encourages* the strengthening of cooperation among States at the regional and sub regional levels in the field of disaster preparedness and response, with particular respect to capacity-building at all levels;

8. *Encourages* Member States, with the facilitation of the Office for the Coordination of Humanitarian Affairs of the Secretariat and in cooperation with the International Search and Rescue Advisory Group, to continue efforts to improve efficiency and effectiveness in the provision of international urban search and rescue assistance, including the further development of common standards;

9. *Requests* the Secretary-General to submit to the General Assembly at its fifty-ninth session, a comprehensive, updated report with recommendations on progress in the improvement of efficiency and effectiveness in the provision of international urban search and rescue assistance, taking into account the extent of utilisation of the Guidelines of the International Search and Rescue Advisory Group.

75th plenary meeting
16 December 2002

A4 How to Contact UN OCHA (FCSS)

Office for the Coordination of Humanitarian Affairs
Field Coordination Support Section
Palais des Nations
CH 112 Geneva 10, Switzerland

Telephone : +41(0)22 917 1234
Facsimile : +41(0)22 917 0023

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B INTERNATIONAL SEARCH AND RESCUE ADVISORY GROUP

B1 Purpose of the INSARAG Guidelines

1. The INSARAG Guidelines aim to provide a methodology for the country affected by a sudden onset disaster causing large-scale structural collapse as well as international USAR teams responding to the affected country. They also outline the role of UN assisting affected countries in on-site coordination.

2. As affirmed in the United Nations GA Resolution 57/150 of 16 December 2002, countries prone to earthquakes or disasters with the potential to cause structural collapse are strongly advised to include the INSARAG methodology in their national emergency management plans. The INSARAG Guidelines address two distinctly different yet equally important groups, namely, the responding countries and their international USAR teams and the affected countries. The methodology as defined in the Guidelines provides a process for preparedness, cooperation and coordination of all local and international participants. This will result in an improved understanding at all government levels of the affected country of how best to incorporate international USAR assistance into disaster operations to ensure the most effective use of available USAR resources.

B2 INSARAG Methodology Cycle

1. The guidelines address international USAR response in a cycle, which includes the following phases:

   1.1 **Preparedness** – describes the period between disaster responses during which time lessons learned from previous experience are reviewed and relevant amendments and improvements to SOP's are made, training is conducted and planning for future response occurs.

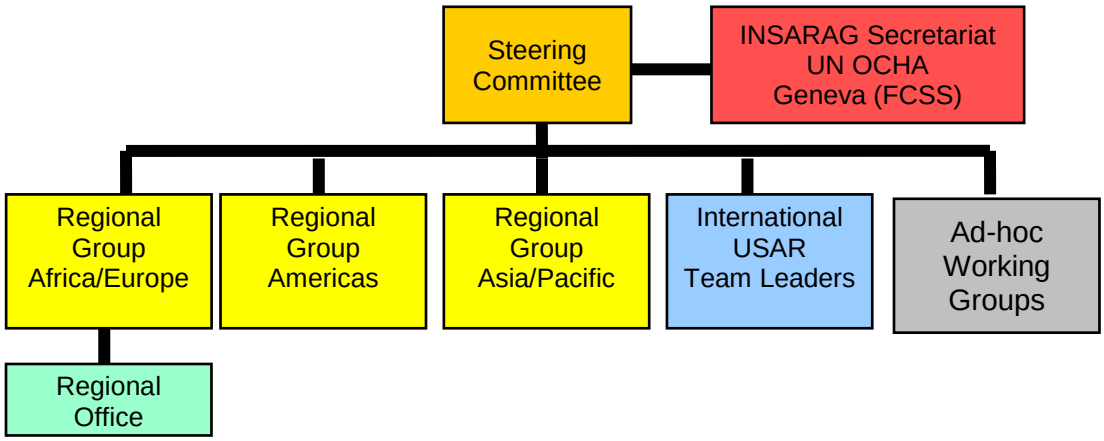
   1.2 **Mobilisation** – describes the actions required immediately following the occurrence of a disaster and an international USAR team prepares to respond to assist the affected country.

1.3 **Operations** – describes all the actions required when an international USAR team arrives at the RDC, registers with the OSOCC, reports to LEMA and performs USAR operations until it is instructed to cease USAR operations.

1.4 **Demobilisation** – describes the actions required when the USAR team has been instructed that USAR operations are to cease and commences its withdrawal, coordinates its departure through the OSOCC and departs from the affected country through the RDC.

1.5 **Post-Mission** – describes the actions required when an international USAR team has returned home and is required to complete and submit a post-mission report and conduct a lessons learned review to improve the overall effectiveness and efficiency for response to future disasters.

B3 INSARAG Structure



B3.1 INSARAG Steering Committee

1. INSARAG is directed by a Steering Committee, which consists of a Chairperson, Secretary (which is held by the Chief, FCSS, UN OCHA), Chairpersons of Regional Groups, Deputy Chairpersons of Regional Groups, and a representative of the IFRC and Chairs of any relevant Ad-hoc working groups.

The Steering Committee meets annually to determine the strategic direction and policies of INSARAG.

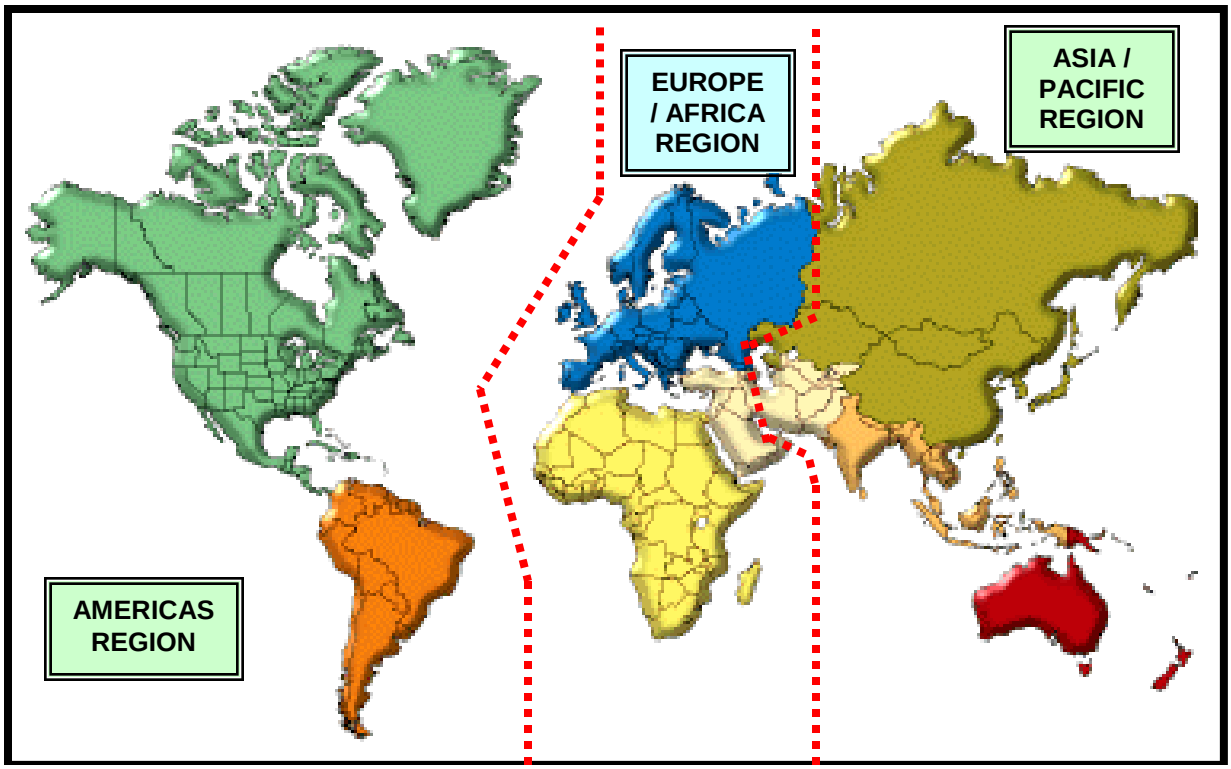
B3.2 INSARAG Secretariat

1. The INSARAG Secretariat seat is the FCSS, UN OCHA, located in Geneva, Switzerland. The task of the INSARAG Secretariat is to organise INSARAG meetings, workshops, IEC and training events in cooperation with the host country. The INSARAG Secretariat is responsible for the management and maintenance of the Virtual OSOCC, the INSARAG website and the INSARAG USAR Directory. In addition, the INSARAG Secretariat is responsible to follow-up and facilitates any projects that have been agreed upon and launched by the INSARAG network.

B3.3 INSARAG Regional Groups

1. The INSARAG Regional Groups are as follows: Africa/Europe Region, Americas Region, and Asia/Pacific Region. These Regional Groups meet annually to take measures to strengthen regional USAR response and ensure the strategic direction and policies from the Steering Committee are implemented, and to assimilate relevant information from participating countries for submission to the Steering Committee.

2. Regional Groups encourage the participation of all countries in their region and aim to provide a forum to discuss USAR related issues, regional cooperation and capacity building. One of the primary outcomes of these meetings is an annual regional work plan that addresses capacity building, training and other issues relevant to integrated approaches to disaster response. Each Regional Group has a Chairperson and a Deputy Chairperson, elected annually, and sits on the INSARAG Steering Committee.



B3.4 INSARAG Regional Antennae

1. The decision to create an INSARAG Regional Antennae is taken by the INSARAG Steering Committee. An INSARAG Regional Antennae is established and hosted by INSARAG member countries in disaster-prone regions with the aim of enhancing the capacity of the INSARAG network.

2. An INSARAG Regional Antennae is not a UN office; instead each Office is formed through bilateral arrangements by the host country with support provided by other countries of the regional group. The INSARAG Regional Antennae works under the authority of the respective INSARAG Regional Group and its activities are monitored by the INSARAG Secretariat to ensure adherence to accepted INSARAG methodology.

3. INSARAG Regional Antennae tasks may include:
   3.1 Translation of the INSARAG documents and websites into the language(s) of the region;

3.2 Assist the Regional Chair in identifying and registering INSARAG Focal Points within the region and coordinating the attendance of members to INSARAG conferences, meetings, and workshops;

3.3 Assist the INSARAG Secretariat with the organisation of INSARAG training within the region by posting scheduled regional events to the annual calendar on the INSARAG website.

B3.5 AD-HOC Working Groups

1. Task specific Ad-hoc Working Groups may be established from time to time at the request of the Steering Committee, the Regional Groups or USAR Team Leaders. These groups are staffed with personnel who have the relevant experience and qualifications to address the issues under discussion and include a representative from the INSARAG Secretariat. The purpose of these working groups is to develop solutions to specific issues identified by the requesting party (INSARAG Guideline revision, training, etc.). On completion of the task, the groups disband.

B3.6 International USAR Team Leaders

1. This is a network of experienced USAR practitioners who respond to collapsed structure incidents domestically and internationally and whose input, advice and experience serve to improve operational capabilities of international USAR response. The INSARAG Secretariat convenes an annual USAR Team Leaders meeting for all registered international USAR Team Leaders. These meetings provide a forum to discuss technical issues relating to training and best practice based on lessons learned from previous USAR operations and exercises.

B3.7 INSARAG National Focal Point

1. If the country is prone to disasters with the potential to cause structural collapse, or if the country is a provider of international USAR assistance, an INSARAG National Focal Point should be identified. The INSARAG National Focal Point should be a senior officer in the Government Ministry responsible for the

management of international and/or national disaster response. Ideally, the INSARAG National Focal Point will occupy this position for several years in order to establish and maintain institutional memory in his country and to ensure continuous Government commitment vis-à-vis INSARAG.

2. The responsibilities of the INSARAG National Focal Point include:

2.1 Act as single point of contact of the Government for the INSARAG Secretariat international responders;

2.2 Promote INSARAG methodology as defined in the General Assembly Resolution 57/150 of 16 December 2002 on "*Strengthening the Effectiveness and Coordination of International USAR Assistance*" in their country among its disaster managers at all administrative levels;

2.3 Ensure the INSARAG methodology for the receipt of international assistance, as defined in the INSARAG Guidelines and General Assembly Resolution 57/150 of 16 December 2002 is included in its national disaster management plan;

2.4 Represent or ensure representation of their country at meetings of the respective INSARAG Regional Group;

2.5 Disseminate information from the INSARAG Secretariat, in particular invitations to INSARAG meetings, workshops, training courses or USAR exercises to relevant disaster management authorities and USAR teams in their country;

2.6 Ensure that national USAR teams (government or NGO) envisaged to be deployed to international disaster response operations meet INSARAG classification standards. Once confirmed, the details of these resources are to be entered in the INSARAG USAR Directory;

2.7 Ensure regular updates are posted on the Virtual OSOCC in case of emergencies;

2.8 In the case of a disaster in his or her country, ensure regular situation updates, national response activities and priority needs are provided on the Virtual OSOCC.

2.9 In the case of a disaster in his or her country, facilitate the establishment of the RDC and OSOCC.

3. The INSARAG National Focal Point should have the capacity to verify or decide, whether their country is prepared to support INSARAG activities as listed below:

3.1 Host INSARAG training courses for disaster managers at all administrative levels;

3.1.1 A host country should invite the participation of disaster managers from neighbouring countries or countries within the region in the INSARAG Awareness Training Course. The purpose of this course is to introduce INSARAG methodology to disaster managers (Annex A);

3.1.2 The INSARAG USAR Exercise should ideally be held in conjunction with a national earthquake or equivalent disaster response exercise. An international component consisting of international USAR teams and an UNDAC team should be integrated into the exercise. The international portion of the exercise is conducted in command-post style with assistance provided by the INSARAG Secretariat (Annex B);

3.2 When a country is elected chair of the respective INSARAG Regional Group, it is required to host the annual INSARAG Regional Meeting, co-organised by the INSARAG Secretariat;

3.3 Host and chair the annual INSARAG Team Leaders' meeting, which is co-organised and facilitated by the INSARAG Secretariat;

3.4 Host and chair other INSARAG workshops, as recommended by a Regional Group or as directed by the Steering Committee, which are facilitated by the INSARAG Secretariat.

4. If the INSARAG National Focal Point should leave their assignment, a replacement should be appointed and the INSARAG Secretariat informed accordingly.

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C INTERNATIONAL USAR RESPONSE ENTITIES

C1 UN OCHA

1. UN OCHA serves as the INSARAG Secretariat of the INSARAG Steering Committee and is mandated to coordinate international assistance in disasters and humanitarian crises exceeding the capacity of the affected country. Many actors such as governments, NGOs, UN Agencies and individuals respond to disasters and humanitarian crisis. UN OCHA works with all participants and responds to disasters to assist the government of the affected country in an effort to ensure the most effective use of international resources.

C2 LEMA

1. LEMA is the term used to describe the local emergency management authority. The LEMA is the ultimate responsible authority for the overall command, coordination and management of the response operation. LEMA can refer to national, regional or local authorities, or combinations thereof, which are collectively responsible for the disaster response operation.

C3 UNDAC

1. The UNDAC Team is available to UN OCHA for deployment to sudden-onset emergencies. UN OCHA will dispatch an UNDAC Team when requested to do so by the affected Government or the UN Resident Coordinator in the affected country. UNDAC Team personnel are available around the clock and are able to respond at very short notice. The UNDAC Team is provided free of charge to the affected country.

2. UNDAC Team members are trained emergency managers from countries, international organisations and UN OCHA. The UNDAC Team is managed by FCSS in UN OCHA Geneva and works under the umbrella authority of the UN Resident Coordinator and in support of and close cooperation with the LEMA. The UNDAC Team assists the LEMA with the coordination of international

response including USAR, assessments of priority needs and information management by establishing an OSOCC.

C4 International USAR Teams

1. Urban Search and Rescue teams are response assets from the affected country or from the international community that respond to carry out search and rescue activities in collapsed structures.

C5 Reception Departure Centre (RDC)

1. The RDC, an extension of the OSOCC, is established at points of entry into an affected country (e.g. airports) for international response. The RDC is set up by the UNDAC team or by first arriving USAR teams with the primary responsibility of facilitating the arrival and then later, the departure of international response teams. The RDC works in close cooperation with immigration, customs and other local authorities. If the RDC has been set up by a USAR team, it will be handed over to the UNDAC team when they arrive.

2. Countries are encouraged to incorporate the establishment, staffing and operation of a RDC into disaster preparedness plans and this should be practically tested during routine disaster preparedness exercises.

C6 On-Site Operations Coordination Centre (OSOCC)

1. The OSOCC is established close to the LEMA and as close to the disaster site as is safely possible. It provides a platform for the coordination of international responders and LEMA. The OSOCC is established by the UNDAC team or by the first arriving international USAR team who will then hand over the OSOCC to the UNDAC team when they arrive. The main purpose of the OSOCC is to assist LEMA with the coordination of international and national USAR teams as well as other sectoral responders (e.g. health, water/sanitation, shelter).

2. In disasters where the devastation covers huge areas and there is a need for international coordination at remote disaster sites, the UNDAC team or first arriving

UAR teams in these areas will make use of a sub OSOCC concept. When this situation arises, the main OSOCC will generally be established in a major national coordination centre with one or more sub OSOCC being established at various disaster sites as required.

C7 Virtual OSOCC

1. The Virtual OSOCC is a web-based information management tool at http://ocha.unog.ch/VirtualOSOCC. The Virtual OSOCC is an information portal to facilitate information exchange between responders and the affected country after sudden-onset disasters. Access to the Virtual OSOCC is restricted, requiring a password, to disaster managers from governments and disaster response organisations. The Virtual OSOCC is managed by FCSS, UN OCHA.

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D INTERNATIONAL USAR COORDINATION

D1 Responsibilities of UN OCHA in International USAR Response

D1.1 Preparedness

1. Function as the INSARAG Secretariat
2. Advocate and promote International USAR preparedness
3. Facilitate and coordinate the development of internationally accepted USAR methodology
4. Act as focal point for INSARAG related issues within the UN
5. Maintain the international USAR Directory on the INSARAG website

D1.2 Mobilisation

1. Activate the Virtual OSOCC
   - 1.1. Provide continuous updates regarding casualties and damage, entry points and procedures, specific requests for assistance;
   - 1.2. Inform all international participants of any special cultural, religious or traditional habits of the affected country, weather, safety and security issues etc;
2. Work closely with the affected country to ensure the timely release of a request for international assistance;
3. Communicate with UN representatives in the affected country;
4. Deploy an UNDAC team if required;
5. Request UNDAC Support Modules, as required.

D1.3 Operations

1. Manage the Virtual OSOCC and post regular situation updates;
2. UNDAC team is required to establish (if not already done) and maintain a RDC and OSOCC;
3. Provide support to the UNDAC team as required;

4. Request additional IHP Support Modules as required.

D1.4 Demobilisation

1. Manage the Virtual OSOCC and post regular situation updates;
2. Provide support to the UNDAC as required.

D1.5 Post-Mission

1. Perform an analysis of USAR team operations referencing all USAR Team Post Mission Reports (Annex E);
2. Convene a lessons learned meeting with all stakeholders, if necessary;
3. Disseminate the report of the lessons learned meeting to all stakeholders and post it on the INSARAG website.

D2 Affected Country Responsibilities in International USAR Response

D2.1 Preparedness

1. Maintain a National Focal Point;
2. Develop and maintain domestic USAR teams according to the INSARAG Guidelines and Methodology;
3. Implement and maintain a process to launch a request for international assistance in a timely manner;
4. Implement and maintain procedures for receiving international USAR teams into the country in case of disaster, including:
   - 4.1 Establishing a RDC;
   - 4.2 Visa assistance enabling rapid entry of international USAR teams into the country;
   - 4.3 Entry permission for:
     - 4.3.1 Specialised communications equipment;
     - 4.3.2 Search, rescue and medical equipment;
     - 4.3.3 Search dogs;
     - 4.3.4 Emergency medical pharmaceuticals;

4.4 Provide security for personnel, equipment and OSOCC and BoO facilities;

4.5 Prepare to support the logistic requirements of USAR Teams including interpreters, guides, fuel, transport, water, maps, BoO location, etc;

4.6 Develop a capacity to post regular updates and briefings to the Virtual OSOCC and to arriving USAR teams.

D2.2 Mobilisation

1. When required, make the request for international assistance as soon as possible. Requests for international assistance can be directed through various channels, namely through UN OCHA, other regional networks, or on a bilateral basis.
2. Include in the national disaster plan the establishment of LEMA and deployment of domestic USAR teams;
3. Establish a RDC;
4. Conduct immediate situation and needs assessments. The priority needs of international assistance should be identified and the information passed to the international community as soon as possible through UN OCHA and the Virtual OSOCC;
5. Provide regular situation updates on the Virtual OSOCC;
6. Communicate the cessation of the need for additional USAR teams.

D2.3 Operations

1. Establish a LEMA to manage the disaster;
2. Maintain representation at the RDC and the OSOCC to ensure a coordinated response and national priorities are met;
3. Utilise international coordination mechanisms provided by UNDAC Teams, RDC and OSOCC structures;
4. Prepare mechanisms to integrate international USAR teams into ongoing national operations.

D2.4 Demobilisation

1. Declare the end of the USAR operations phase;
2. Provide logistical support to assist the withdrawal of international teams.

D3 Assisting Country Responsibilities in International USAR Response

D3.1 Preparedness

1. Implement and maintain procedures to ensure access to transport for rapid deployment of USAR teams;
2. Bear all costs related to international deployment;
3. Establish a capability to re-supply USAR teams while abroad if necessary;
4. Develop and maintain USAR teams according to the INSARAG Guidelines and Methodology.

D3.2 Mobilisation

1. Once the decision is taken to deploy an international USAR Team, the assisting country is required to make an entry into the Virtual OSOCC stating the USAR team size, volume and weight of equipment, flight information with ETA and team contact details;
2. Identify and maintain a headquarters' focal point for the duration of the mission;
3. Provide regular information updates during all phases of the operation via the Virtual OSOCC.

D3.3 Operations

1. Provide all logistical and administrative support that may be required by the team while they are on mission.

D3.4 Demobilisation

1. Continue to assist the affected country as required where possible (engineering and medical assessments);
2. Continue to update relevant information on the Virtual OSOCC;

3. Once its USAR teams are no longer required, provide transportation home.

D4 Responsibilities of International USAR Teams

D4.1 Preparedness

1 Maintain a constant state of readiness for rapid international deployment;
2. Maintain a capability to conduct international USAR operations;
3. Ensure self-sufficiency for deployed responders for the duration of the mission;
4. Maintain appropriate team member inoculations/immunisations, including search dogs;
5. Compose the team of personnel that conduct USAR operations in their own country;
6. Maintain appropriate travel documents for all team members;
7. Maintain a capacity to staff and support to the RDC and OSOCC;
8. Maintain a 24-hour Operations Focal Point.

D4.2 Mobilisation

1. Register the team's availability to respond and provide pertinent updates on the Virtual OSOCC;
2. Complete the USAR Team Fact Sheet (Annex F) and have hard copies available for RDC and OSOCC upon arrival;
3. Deploy a coordination element with its USAR team to establish or sustain a RDC and or OSOCC;
4. Maintain a 24-hour Operations Focal Point.

D4.3 Operations

1. Establish or sustain a RDC and or OSOCC as required;
2. Ensure proper conduct of its team members;
3. Perform tactical operations in accordance with the INSARAG Guidelines;
4. Participate in OSOCC meetings regarding USAR operations;
5. Provide regular updates on activities to home country.

D4.4 Demobilisation

1. Report its mission has ended to the assisting country;
2. Coordinate its withdrawal with the OSOCC;
3. Provide completed documents (Annex G) to the OSOCC or RDC prior to departure.

D4.5 Post Mission

1. Submit a USAR Team Post Mission Report to the INSARAG Secretariat within 45 days of their return;
2. Analyse its deployment performance and amend SOPs as required.

D5 Responsibilities when establishing a provisional RDC

1. Coordinate activities with airport authorities and LEMA;
2. Identify a suitable location for the RDC;
   - 2.1 Ensure the RDC is visible and well marked for incoming teams (flags, directional signs, etc);
   - 2.2 Establish a waiting area for incoming teams to reduce congestion at the RDC;
3. Establish communications link to the OSOCC and Virtual OSOCC as soon as possible;
4. Collect relevant information for incoming resources, including:
   - 4.1 Immigration and customs issues related to visa, immunisations, communications equipment, medical and rescue equipment;
   - 4.2 Airport logistics with regard to cargo handling and aircraft parking;
   - 4.3 Transportation of personnel and equipment to the disaster site;
   - 4.4 Access to petroleum products and compressed gases;
   - 4.5 Access to updated incident information;
   - 4.6 Coordination structures and contact details (LEMA, OSOCC);
   - 4.7 Matters pertaining to safety and security issues;
   - 4.8 Access to maps, interpreters, guides;

5. Register and brief incoming resources;
6. Request additional staff from incoming teams to strengthen the RDC as appropriate;
7. Operate the provisional RDC until the arrival of the UNDAC team;
8. Prepare to hand over the RDC to the UNDAC team upon its arrival.

D6 Responsibilities when establishing a provisional OSOCC

1. Coordinate activities with LEMA
   - 1.1 Determine the role of the OSOCC regarding the coordination of international actors and relief;
   - 1.2 Establish an information exchange process between LEMA and OSOCC;
2. Identify a suitable location for the OSOCC ensuring visibility for incoming resources (flags, directional signs, etc);
3. Establish communications link to the RDC and Virtual OSOCC as soon as possible;
4. Gather the following information:
   - 4.1 Current incident information and update reports accordingly;
   - 4.2 Establish the priority needs of the affected country;
   - 4.3 Record USAR Team Fact Sheet information of incoming resources;
   - 4.4 Identify potential locations for the BoO
   - 4.5 Obtain a map of impacted area;
   - 4.6 Establish the victim hand-over procedure;
   - 4.7 Identify the location of cranes, loaders, forklifts and lorries and establish the procedure of how to gain access to these resources;
   - 4.8 Arrange transportation for personnel and equipment to and from work sites;
   - 4.9 Identify the location of petroleum products, timber and compressed gases and establish the procedure of how to gain access to these resources;
   - 4.10 Establish coordination structures and meeting details;

4.11 Establish a plan to address safety and security issues;

4.12 Identify the location of Interpreters and guides and establish the procedure of how to gain access to these resources;

5. Assist LEMA with assigning USAR and other resources based on above information;

6. Register and brief incoming resources;

7. Request additional staff from incoming teams to strengthen OSOCC as appropriate;

8. Operate the provisional OSOCC until the arrival of the UNDAC team;

9. Prepare to hand over the OSOCC to the UNDAC team upon its arrival.

D7 Responsibilities within an OSOCC

1. Perform all coordination duties required during operation in a provisional OSOCC as appropriate;

2. Gather and document information from OSOCC Planning form (Annex C);

   2.1 Analyse the priority needs of the affected country in relation to the resources on hand;

   2.2 Capture and analyse information supplied by USAR teams and other actors;

   2.3 Determine gaps in operations and recommended appropriate changes;

   2.4 Consider long-term plans with regard to additional resources and reassignment;

3. Display information onto incident map;

4. Prepare for and facilitate daily USAR operations meeting;

5. Review and update plan of action based upon OSOCC planning meeting results and other information received:

   5.1 Length of operational periods to accomplish assigned tasks;

   5.2 Briefing schedules;

6. Prepare USAR operations input for the OSOCC situation report;

7. Assist with the USAR Demobilisation phase:

   7.1 Disengagement phase;

7.2 Establish a departure schedule

7.3 Determine the teams' logistical requirements including transportation to home country

7.4 Brief the departing USAR teams (Annex D)

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E USAR TEAM CLASSIFICATION

1. Over the past decade disasters around the world, affecting urban areas of high density populations living and working in concrete and reinforced concrete single and multi story dwellings, has increased the need for sophisticated USAR capabilities. Advances in technology have improved the ability to locate, rescue, and provide medical treatment to trapped victims. Many countries have developed a USAR capability and, when required, send teams of well-trained USAR experts to assist countries affected by disasters causing large-scale structural collapse.

2. While deployment of international USAR teams has been of great benefit to trapped victims and the affected country, lessons learned have revealed the need for responding USAR teams to be integrated within a well coordinated system to ensure the most appropriate use of available USAR resources. There is a need to classify international USAR teams according to their operational capabilities in order to ensure that only qualified and appropriate USAR resources are deployed to an emergency.

3. All USAR teams, irrespective of their capacity classification and operational involvement, should comprise of the following components:
   3.1. Management
   3.2. Logistics
   3.3. Search
   3.4. Rescue
   3.5. Medical

4. Figure 1 illustrates that the majority of people affected by a disaster causing structural collapse will be rescued by the community. This is done in the immediate aftermath of the disaster and requires very little equipment. However, when victims are trapped in structures, particularly heavily reinforced concrete

structures, highly specialised skills and equipment are required to locate, gain access and rescue victims.

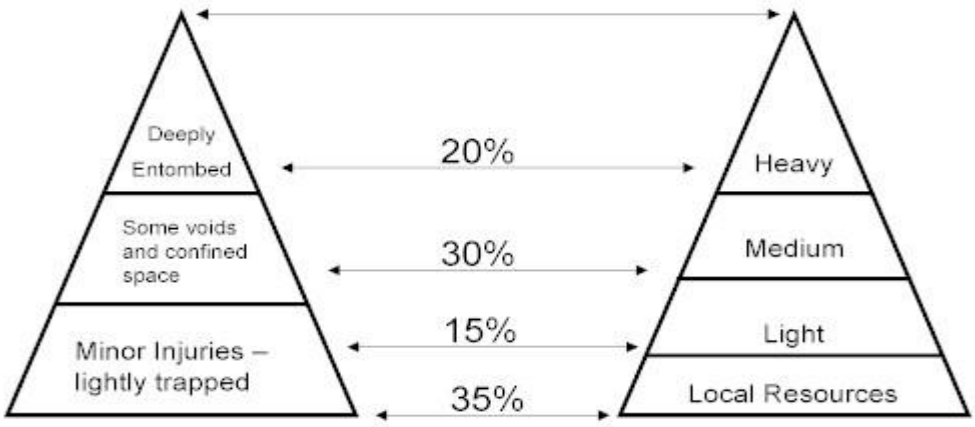

Figure 1

5. The chance of a trapped victim surviving decreases rapidly and it is therefore of utmost importance that the appropriate resources are assigned to the appropriate sites as soon as possible. The INSARAG USAR Team Classification System is designed to ensure that assisting countries send a team with the required skills and equipment. It also plays a major role in ensuring that the appropriate resources are assigned to the appropriate sites as soon as possible.

6. The USAR Team Classification System ensures that USAR teams have a common understanding with regard to the different classification capabilities. Teams are able to integrate effectively as they will have the same basic structure, comprise of the same components and will have standardised qualifications for the primary aspects of a USAR team response. This results in a safe, effective multinational operational response.

7. The INSARAG USAR Team Classification System has identified three levels of classification. These are Light, Medium and Heavy USAR teams.

7.1. **Light USAR Teams** have the operational capability to assist with surface search and rescue in the immediate aftermath of the disaster. Light USAR teams usually come from the affected country and neighbouring countries. It is not recommended that Light USAR teams deploy internationally to emergencies.

7.2. **Medium USAR Teams** have the operational capability for technical search and rescue operations in structure collapse incidents. Medium USAR teams are capable of breaking, breaching and cutting concrete, typically found in suburban areas. Medium USAR Teams are not expected to have an ability to cut, break and breach concrete reinforced with structural steel. International Medium USAR Teams travelling to an affected country should be operational in the affected country within 32 hours of the posting of the disaster on the Virtual OSOCC.

7.3. **Heavy USAR Teams** have the operational capability for difficult technical search and rescue operations in structure collapse incidents, particularly those involving structures reinforced with structural steel. Heavy teams are envisaged for international assistance in sudden onset disasters resulting in collapses of multiple reinforced concrete structures, typically found in urban settings, when national response capacity has either been overwhelmed or does not possess the required capability. International Heavy USAR Teams travelling to an affected country should be operational in the affected country within 48 hours of the posting of the disaster on the Virtual OSOCC.

8. Only USAR teams that meet the requirements of the USAR Team Classification System will be registered in the INSARAG USAR Directory. Details of the requirements that teams need to achieve in order to be classified are listed in the INSARAG Classification Checklist (Annex H).

9. The INSARAG Secretariat arranges to conduct the INSARAG External Classification (IEC) of international USAR teams when requested to do so by the National Focal Point (Annex I).

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F INTERNATIONAL URBAN SEARCH AND RESCUE

F1 International USAR Ethics Considerations

F1.1 Introduction

1. The conduct of deployed USAR team members is a primary concern to INSARAG, the assisting and affected countries, and the local officials of the affected country.

2. USAR teams should always aim to be perceived as representatives of a well organised, highly trained group of specialists who have been assembled to help communities in need of their specialist assistance. At the conclusion of a mission, USAR teams should have ensured their performance has been positive, and they will be remembered for the outstanding way they conducted themselves in the work environment and socially.

3. Ethics considerations include human rights, legal, moral and cultural issues, and concerns the relationship between USAR team members and the community of the affected country.

4. All members of a USAR team are ambassadors of their team and their country and any violation of principles or behaviour unbecoming by team members will be viewed as unprofessional. Any inappropriate behaviour may discredit the good work of the USAR team and will reflect poorly on the entire team's performance and their home country.

5. At no time during a mission should USAR team members take advantage of or exploit any situation or opportunity, and it is the responsibility of all team members to conduct themselves in a professional manner at all times.

F1.2 Sensitive Issues to Consider

1. The value that the local community attaches to life
2. Cultural awareness including race, religion and nationality
3. Communication barriers due to language differences
4. Differences in work ethics and values
5. Different local apparel
6. Local customs with regard to food, manners etc
7. Local law enforcement practices
8. Local policy on weapons
9. Local living conditions
10. Local driving habits and customs
11. Local policy on the use of different medications
12. Use of alcohol and illegal drugs
13. Handling of sensitive information
14. Use of search dogs
15. Care and handling of patients and/or the deceased
16. Dress code or standards
17. Gender restrictions
18. Recreational restrictions
19. Local communication restrictions and accepted use
20. Taking of and showing pictures of victims or structures
21. Collecting of souvenirs (building parts etc.)
22. Defacing property such as occurs with the use of the structural marking system
23. Access into restricted areas (Military, religious, etc)
24. Moral standards
25. Consideration for other teams' capabilities and operating practices
26. Use of gratuities to promote cooperation
27. Political issues
28. Any actions or behaviour that may aggravate stressful situations

F2 USAR Team Planning

F2.1 Introduction

1. Planning is a continuous process that begins well before any response and continues after the USAR team returns. The planning function entails the gathering and distribution of information, and the determination of all necessary resources and contingencies required to accomplish the mission.

2. The function of information management and planning must be completely understood by the USAR team staff and command functions. In most instances, operational planning and assigning works sites is the responsibility of the OSOCC to ensure the objectives established by LEMA are accomplished. USAR teams are required to attend planning meetings scheduled by the OSOCC to report its progress, request additional support or assistance, and accept new assignments.

F2.2 Preparedness

1. USAR Team Management will ensure:
   - 1.1 USAR team members are selected and given training relating to the UNDAC system including the RDC and the OSOCC in order to perform required coordination duties;
   - 1.2 Team members must deploy with all necessary travel documentation not just limited to passport, identification card, or record of immunisation. As an example, many countries maintain strict regulations regarding medical therapies. Therefore all emergency medications carried by the team will require a prescription and medical team members are required to carry proof of their professional medical qualifications. Search dogs should have microchips inserted and must be accompanied with updated vaccination certificates;
   - 1.3 OSOCC Operations Planning forms must be available electronically and in hard copy format.

F2.3 Mobilisation

1. As much current information as possible on affected country and the actual situation should be gathered to aid in the decision making process.
2. Liaise with the team's governing body to determine whether the USAR team will be deployed on the mission.
3. USAR Team management should conduct an initial planning session to determine the team's readiness to deploy.
4. Team members must be briefed on the current situation.
5. Develop a mission-specific organisation structure and ensure all the required organisational positions are filled.
6. Make an entry on the Virtual OSOCC detailing the USAR team's travel details including its special needs upon arrival in the affected country.
7. Make trained and qualified personnel available to establish or sustain the coordination function within the RDC and or OSOCC, if required.
8. Prior to departure, a USAR team will post an entry on the Virtual OSOCC indicating it will be responding to the disaster.
9. Develop contingency plans based on available information about the situation (i.e., staffing, specialist components, special hazards, transportation, etc.).
10. Update the national focal point of the teams status.
11. Arrange and fund transportation to the affected country.
12. Locate and gather information from the RDC, the OSOCC, and or the LEMA regarding operational assignments.
13. Develop a plan of action regarding safety and security issues, moving to and from the disaster sites, logistics and specialised teams if required (i.e., reconnaissance team, liaison, team to identify the BoO and work area, etc).
14. Prepare and conduct a detailed briefing on the plan of action.

F2.4 Operations

1. USAR teams must adhere to the policies and procedures of the affected country regarding incident operations. The LEMA of the affected country is the overall responsible authority for the disaster response.

2. Gather and document information from the OSOCC and or the LEMA including:
   - 2.1 Chain of command;
   - 2.2 Points of contact;
   - 2.3 Current situation updates;
   - 2.4 Team assignments and reassignments;
   - 2.5 Safety and security considerations;
   - 2.6 Communications plan;
3. Brief the OSOCC and or the LEMA on the team capabilities using the USAR Team Fact sheet.
4. Review and update the plan of action based upon OSOCC planning meeting results and then brief assigned personnel.
5. Team Management needs to gain information from the OSOCC regarding:
   - 5.1 Length of operational periods to accomplish assigned tasks;
   - 5.2 Guidance for victim hand-over from the USAR team to local medical system as well as medical treatment and medical evacuation plans for an injured USAR team member;
   - 5.3 Safety and security issues regarding site evacuation;
   - 5.4 Internal briefing schedules;
   - 5.5 Map requirements;
6. Prepare and distribute situation reports to the OSOCC.
7. Consider long-term plans for the purpose of re-supply and reassignment.
8. Documentation should include:
   - 8.1 Chronological log of events;
   - 8.2 Plan of action;
   - 8.3 Medical documentation for victims and team members.

F2.5 Demobilisation

1. USAR teams are required to develop a demobilisation plan to address:
   - 1.1 Disengagement phases;
   - 1.2 Timing schedule for withdrawal;

1.3 Report logistical requirements to the OSOCC including transportation home and details of any equipment donations that will be made;

1.4 Identify and communicate to its home base any support needs (i.e., transportation, media issues, arrival procedures, etc.);

1.5 Security and safety issues.

2. Brief the USAR team regarding the demobilisation process

3. Develop a return to readiness plan to include:

3.1 Personnel and equipment rehabilitation issues;

3.2 Re-supply of equipment and consumable items caches.

4. Records and reports:

4.1 Compile information and develop a Post Mission Report;

4.2 Forward the report to the INSARAG Secretariat within 45-days.

F3 USAR Team Management Responsibilities

F3.1 Introduction

1. USAR operations require the effective interaction of all team elements for safe and successful operations. The central point of coordination of the team lies with the USAR Team Leader. However, on-site operations are determined by the LEMA in coordination with the OSOCC.

2. It is possible that international USAR teams may arrive prior to the RDC and OSOCC or LEMA being operational. In this event, the first arriving teams must ensure that a provisional RDC and OSOCC are established and operated until they can be handed over to the UNDAC Team.

3. Arriving teams may be expected to assign a person(s) to initiate or assist with the RDC and OSOCC functions. Whenever possible, this should be communicated to the team prior to departure to ensure it deploys with adequate staffing levels.

4. The USAR Team Leader is responsible for briefing the USAR team before deployment about an affected country's culture, religion, customs and laws

5. The USAR Team Leader is responsible for reinforcing ethics considerations during all planning sessions, meetings and briefings and to ensure compliance in this

regard. Any violations in this regard must be documented, with appropriate follow-up action taken by a USAR Team Leader and the assisting country.

F3.2 Preparedness

F3.2.1 International USAR Team Structure

1. The USAR team is composed (generically) of two functional components namely operations and management. The management component is supported by the safety and security, information and planning, coordination and public information functions.
2. Team management is responsible for managing all aspects of team operations and ensuring all functional areas within the team coordinate operations. They are also responsible to assess the progress of operations and to ensure coordination with other entities. Team management must ensure ongoing coordination and communication between other response entities.
3. The planning function assists team management with the facilitation of meetings, documentation of events and development of short and long range plans of action. Safety and security planning occurs throughout the mission.
4. The liaison function ensures information exchange and coordination with LEMA through the RDC and OSOCC. The team should have a capacity to set up a provisional RDC or OSOCC if it is the first to arrive in the affected country or at the disaster site.
5. Operations manage the tactical operations such as site assessments, search, rescue and medical care. This section may also include technical support services which address HAZMAT monitoring, structural evaluation by engineers, and coordination of heavy lifting operations to include the use of cranes and other heavy equipment.
6. Logistics develops and maintains communications plans and equipment, manages logistical supply and re-supply issues, and the BoO.

F3.2.2 Team Reporting Relationships

1. For the duration of the mission, the USAR team is an asset provided to an affected

country for response to an emergency but ultimately is under the authority of its own country. The responsibility for all operations in the emergency area is that of the host government. International USAR teams are directed by the LEMA and coordinated by the OSOCC.

2. Upon arrival in the affected country, the USAR Team Leader is required to report to the RDC and OSOCC. The RDC and/or OSOCC will arrange for the team's immediate needs and transportation to the assigned work area.
3. While on site, the formal lines of authority will be channelled from the LEMA to the OSOCC and through the OSOCC to the USAR Team Leader. The OSOCC serves as the coordination point for international USAR teams but the LEMA is the ultimate authority as it represents the host government.

F3.2.3 Arrival in the Affected Area

1. Upon the arrival of the team at the disaster area, the USAR Team Leader should attend a briefing at the OSOCC, if established, and/or the LEMA to receive a briefing on the current situation. If the OSOCC has not been established, the first arriving USAR teams are requested to set up a provisional OSOCC and operate it until the arrival of the UNDAC team.
2. The existing chain of command, and specifically to whom and how the USAR Team Leader reports, must be quickly established to ensure continuity throughout the operation:
   - 2.1 Any cultural practices that could become an issue during the team's operations should be adequately explained to the team;
   - 2.2 If available, the current and previous OSOCC plan of action should be reviewed by the USAR Team Leader to gain insight to the chronology of events;
   - 2.3 The relationship between the USAR team, the OSOCC and the LEMA must be made clear to all concerned;
   - 2.4 The OSOCC should record the team's on-site contact details.
3. It is imperative that the OSOCC and LEMA have an understanding of the USAR team capabilities:

3.1 Specific support requirements for the team should be identified;

3.2 The team member authorised to request such support should be identified;

4. The OSOCC is required to advise the USAR Team Leader of:

4.1 Communications methods available and in use;

4.2 The reporting schedule including situation reports, operational briefings, etc;

4.3 How reports and requests are transmitted to and from the OSOCC;

4.4 USAR team support locally available;

4.5 Availability and location of a BoO;

4.6 Availability of specialised equipment.

5. The specific team assignment should be discussed with the OSOCC and the LEMA and this briefing should include:

5.1 Site location and information;

5.2 Information regarding the affected area prior to the event;

5.3 General population demographics, languages and anticipated numbers of victims;

5.4 Identified objectives of the assignment;

5.5 Safety and security information;

5.6 Information on infrastructure assessments

5.7 Maps of the disaster site

5.8 Logistics support available to the team

5.9 Medical treatment/transport considerations

5.10 Procedure regarding the hand-over of victims to local medical providers

5.11 Medical evacuation plan for team members

5.12 LEMA should identify ongoing activities, including:

5.12.1 Prior and current operations at the site;

5.12.2 Other resources operating the in the area assigned to the team;

5.13Contacts at the site and the method to contact them;

5.14 Status of utility companies and public works

F3.2.4 Base of Operations (BoO)

1. The USAR Team Leader is responsible for assessing the potential BoO sites

identified by the OSOCC.

2. The OSOCC may task a USAR team to identify potential BoO locations for arriving international USAR Teams.

F3.3 Operations Plan Of Action

1. Following the initial briefing and assignment from the OSOCC, the USAR team management should develop and implement a plan of action for the operational period including:
   - 1.1 A situation assessment;
   - 1.2 Establish strategies to achieve LEMA's objectives;
   - 1.3 Briefing and assignment resources;
   - 1.4 Management of ongoing operations;
   - 1.5 Evaluation of the effectiveness of operations;
   - 1.6 Identification of accomplishments;
   - 1.7 Update of the plan of action;
   - 1.8 Order additional resources as required;
   - 1.9 Regular briefings to the OSOCC on progress and shortfalls.

F3.3.1 Interaction with the Local Command Structure

1. The international USAR Team is under the control of LEMA and will work to achieve the priorities established by LEMA.
2. The USAR Team Leader should make every attempt to integrate team operations with the ongoing local rescue effort.
3. The USAR Team Leader must identify local support needs required by the team and forward these to the OSOCC. The OSOCC will coordinate with LEMA officials for the supply of the required local support and includes:
   - 3.1 Fuel, compressed gases, timber, heavy lifting and other specialised equipment and/or support personnel (i.e., local emergency responders, local civilian volunteers, NGOs, military personnel, etc.).
4. The USAR Team Leader must be sensitive to potential problems that can occur if there is a perception that the international USAR resources overshadow local rescue

efforts.

5. The local medical system should be assessed to determined whether the medical system can effectively cope with the impact of the situation or if the system is extended beyond its capabilities:
   - 5.1 If the local medical system has been overextended or rendered ineffective by the disaster, it should be suggested to LEMA to consider requesting additional support if not already done;
   - 5.2 Determine the victim (live and dead) hand-over procedures;
   - 5.3 Establish a procedure for the evacuation of an injured or ill team member.
6. Media management procedures must be identified during the initial briefing:
   - 6.1 Request the OSOCC to provide information on LEMA's requirements for interacting with the media;
   - 6.2 The USAR Team Leader must brief team personnel on the procedures for interacting with the media.

F3.3.2 Work Period Scheduling/Rotations

1. One of the most important strategic considerations at the beginning of operations is how to best assign USAR team personnel. The USAR Team Leader should consider the following options:
   - 1.1 Develop a plan for the most effective use of the team personnel;
   - 1.2 Establish a work cycle that allows for adequate rest but maintains flexibility to meet changing operational needs;
   - 1.3 Ensure that reserve personnel are available.

F3.3.3 Team Management

1. The USAR Team Leader has the overall responsibility of personnel, equipment, and operations from the team's activation until its return home.
2. A detailed operations log should be maintained listing the chronological order of events and activities during the mission.
3. For each work site, a site specific report should be completed and should include:
   - 3.1 Number of rescues and body recoveries;

3.2 Other activities undertaken;

3.3 Details of potential rescue sites;

3.4 Safety and security considerations;

3.5 A sketch of the work site;

3.6 Operational shortfalls regarding equipment, supplies, personnel, etc.

4. These site specific reports should be used to:

4.1 Brief USAR team members and other actors;

4.2 Inform the OSOCC of shortfalls in staff and resources;

4.3 Measure achievement of LEMA objectives;

4.4 Brief the home base.

5. Any significant or unusual occurrence should also be included, such as:

5.1 USAR team member injuries and/or deaths;

5.2 Other actions to be addressed;

5.3 Potential claims and or liability issues.

6. The USAR Team Leader is responsible for the safety and security of the team and should:

6.1 Demonstrate a strong commitment to safety;

6.2 Ensure safety and security personnel are clearly identified;

6.3 Ensure safety and security procedures are addressed in the plan of action and are continually reviewed and enforced;

6.4 The USAR Team Leader should ensure the team command structure and functional positions on the team are visibly identifiable.

F3.3.4 Health and Medical Considerations

1. The USAR Team Leader, following input from the medical personnel, is required to:

1.1 Monitor personnel for signs and symptoms of stress-related health problems and implement stress management techniques as appropriate;

1.2 Monitor the team's nutrition and hydration needs;

1.3 Ensure health and hygiene practices are strictly followed.

2. The USAR Team Leader should attempt to balance the affected population needs versus the needs of team personnel.

F3.3.5 Action Planning

1. Planning is an integral part of team operations from the receipt of advisory, alert and activation notifications through to the completion of the Post Mission Report.
2. During a mission, the Team Leader is required to implement both short range and long range planning.
   - 2.1 Short range planning deals with the current and next operational period;
   - 2.2 Long range planning consists of considerations for the duration of the mission;
   - 2.3 Team planning must be done in conjunction with the OSOCC.

F3.3.6 USAR Team Briefings/Debriefings

1. The USAR Team Leader is required to attend scheduled OSOCC briefings to ensure the team is kept informed of current issues and latest developments.
2. The USAR Team Leader should conduct at least two types of team briefings:
   - 2.1 A general briefing in which information is disseminated on broad subjects of relevance or importance to all team members;
   - 2.2 Technical briefings related to functional issues.

F3.4 Demobilisation

1. The LEMA assisted by the OSOCC is responsible for coordinating the demobilisation of international USAR teams. The following should be considered:
   - 1.1 The physical well-being of team members;
   - 1.2 Notification of the assisting country regarding demobilisation;
   - 1.3 Transportation requirements;
   - 1.4 Review the possibility of donating equipment;
   - 1.5 Safety and security issues;
   - 1.6 Disestablishment of the BoO;
   - 1.7 Conduct a general clean up of the rescue work areas;
   - 1.8 Teams are required to complete and submit the Demobilisation Form to the OSOCC who, based on the team's request, should provide the team with an estimated stand down date and time.

1.9 Teams are required to complete and submit the USAR Team Mission Summary Report to the OSOCC.

2. Prior to leaving the area, the USAR Team Leader must meet with the OSOCC, LEMA, and political leaders of the community, as appropriate, to complete the team's participation.

F3.5 Upon Return To The Home Base

1. The USAR Team Leader must ensure injury follow-ups as well as short and long term stress management issues are addressed;
2. The after-action process includes compiling a Post Mission Report documenting administrative issues and operational concerns which should be forwarded to OCHA within 45 days after returning home.

F4 USAR Team Engagement / Disengagement Procedures

F4.1 Introduction

1. To ensure an effective international mission, USAR teams should adhere to the prescribed procedures that clearly identify the critical steps that support the successful integration into the affected country's disaster response operations.

F4.2 Preparedness

1. The USAR team's sponsoring country or organisation is required to:
   - 1.1 Develop specific USAR Team Fact Sheets;
   - 1.2 Provide the USAR team education and training on international cooperation, coordination and cultural awareness;
   - 1.3 Provide training for its members regarding the UNDAC system;
   - 1.4 Provide training on the RDC and OSOCC to ensure understanding and compliance with these established operational procedures.

F4.3 Mobilisation

1. The USAR team leader is required to:

1.1 Utilise the Virtual OSOCC to gain pertinent information and to begin networking with other responders. This forum provides a direct link to international operational strategies, including details for primary points of contact;

1.2 Brief the USAR team on the affected country's cultural and political sensitivities;

1.3 Reinforce the ethics considerations;

1.4 Ensure all deploying USAR team members are in possession of all necessary documentation (i.e., passport, medical credentials, immunisation records, search dogs' health records, etc.);

1.5 Ensure an entry is made on the Virtual OSOCC that alerts affected country officials to its details to expedite the entry process including:

1.5.1 Visa requirements;

1.5.2 Logistics requirements;

1.5.3 Specialised communications equipment;

1.5.4 Search, rescue and medical equipment;

1.5.5 Emergency medical pharmaceuticals;

1.5.6 Search dogs;

1.6 During transit to the disaster, USAR teams are required to:

1.6.1 Identify and prioritise the necessary points of contact, both for the team and its National Focal Point;

1.6.2 Ensure security of the USAR team personnel and its equipment;

1.6.3 Receive direction from the OSOCC and or the LEMA;

1.6.4 Coordinate with other USAR teams;

1.6.5 Identify its chain of command and reporting requirements;

1.6.6 Agree to integrate into ongoing operations established by the affected country;

1.6.7 Plan for media relations;

1.6.8 Strive to accomplish the LEMA objectives and priorities.

F4.4 Operations

1. Before starting operations in an impacted area, USAR Team Leaders must familiarise themselves with the LEMA structure and identify how their team will

augment or enhance ongoing operations. The OSOCC or LEMA will provide USAR Team Leaders with the identity and contact details for local incident commanders at specific work sites, if available.

2. The USAR Team Leader is required to:

2.1 Brief the local incident commander regarding the USAR team capabilities and capacity;

2.2 Develop an initial plan of action to achieve LEMA's objectives;

2.3 Develop strategies for communicating with the affected population;

2.4 Identify local media procedures;

2.5 Identify local resources for work site integration and re-supply;

2.6 Integrate the USAR team into local operations, including:

2.6.1 Site security;

2.6.2 Victim management and transport procedures;

2.6.3 Processing deceased victims;

2.6.4 Victim information to be passed on (i.e., identification, additional information of victim location, etc.).

2.7 Coordinate with other USAR teams;

2.8 The process for disengagement is equally important as the process for engagement. There are various ways the assignment can be terminated:

2.8.1 All assigned tasks have been completed;

2.8.2 The assisting country recalls the team;

2.8.3 USAR team management determines it can no longer operate;

2.8.4 The LEMA releases the USAR team.

2.9 The USAR Team Leader should report its assignment completion and discuss operation effectiveness with the OSOCC;

2.10 The USAR Team Leader should also consider the following prior to disengagement:

2.10.1 In coordination with OSOCC and LEMA, ensure that any media who are present on the site understand why the team is leaving;

2.10.2 Ensure proper hand-over is conducted to USAR teams that take over the tasks of the departing team.

F4.5 Demobilisation

1. Continue to be sensitive to ethics considerations;
2. Ensure all USAR team members are accounted for;
3. Maintain all safety and security requirements;
4. Address media requirements;
5. Complete all OSOCC defined exit requirements;

F5 USAR Team Safety and Security

F5.1 Introduction

1. Search and rescue operations are dependent on multiple resources (with different capacity and capability) working in close concert with each other. These operations take place in environments that can be both dangerous and hazardous. Anyone assigned to a work site that fails to carry out their respective assignment in a safe and secure manner, increases the risk of injury or death to themselves or a team member. Although the risk of injury or death is greatest during disaster operations, it's always prevalent.

2. Though the government of the host country is responsible for the safety of international responders, USAR team management is ultimately responsible for safety and security of team members. However, all team members are personally responsible for their own safety and security and that of other team members including the need to identify, isolate, report and mitigate unsafe or insecure situations.

F5.2 Preparedness

1. Personnel — team management should ensure all team members:
   - 1.1 Are physically able to perform their tasks;
   - 1.2 Have appropriate immunisations for working in the affected country;
   - 1.3 Have appropriate documentation (i.e., passport, visa, Certificate of Vaccination, emergency contacts for next-of-kin);

1.4 Work in appropriate PPE for the incident environment;

1.5 Have appropriate clothing for the climate.

2. Equipment and supplies — team management should ensure:

2.1 Safety practices are incorporated into the packaging, labelling, storing, and movement of personnel and equipment;

2.2 Operator manuals should accompany specialised equipment;

2.3 Team members must be trained in the use of their equipment, PPE, hazard identification and mitigation procedures;

2.4 Sufficient quantities of food appropriate for entry into the affected country is available and will not adversely affect personal health and performance;

2.5 Adequate water is available for the initial phase and that there is sufficient water purification equipment to support the team's needs;

2.6 Sufficient sanitation and hygiene provisions are available for deployment.

3. Security — team management should ensure:

3.1 Team members are trained to understand and conform to security practices as specified by the UN Department of Safety and Security. The UN has five phases of security:

3.1 Phase I — Precautionary

3.2 Phase II — Restricted Movement

3.3 Phase III — Relocation

3.4 Phase IV — Program Suspension

3.5 Phase V — Evacuation

F5.3 Activation

F5.3.1 Safety Issues

1. The team management should ensure:

1.1 The security and safety function is assigned to a team member;

1.2 General and disaster-specific safety issues should be identified and included in the initial team briefing;

1.3 Environmental conditions at the disaster area are identified;

1.4 All personnel check in with the required PPE and appropriate clothing for the environment;

1.5 All personnel are cleared medically prior to deployment.

F5.3.2 Security Issues

1. Team Management should ensure:

   1.1 The security and safety function is assigned to a team member;

   1.2 General and specific security issues should be identified and included in the initial team briefing;

   1.3 Security procedures are in place for all personnel, search dogs and equipment.

F5.4 Departure

1. Identify and brief the team on the hazards associated with modes of transport that will be used to travel to the affected country and those most likely to be encountered for transport within the affected country.

F5.5 In Transit

1. Monitor and enforce compliance with established safety and security practices.

F5.5.1 Transport to the Disaster Site

1. Receive briefing from the RDC and or OSOCC on safety and security aspects including:

   1.1 Type and condition of transport equipment;

   1.2 Local driving customs;

   1.3 Movement of equipment;

   1.4 Any special hazard considerations (i.e., road conditions, land mines, animals, infrastructure, weather, looting, civil unrest, criminal acts, restricted areas, check point procedures, escort procedures, etc);

   1.5 Identify local medical capabilities available in case of an emergency during transportation to the disaster site.

2. Implement security procedures as appropriate:
   - 2.1 Vehicle inspection program;
   - 2.2 Ensure reserve fuel supply
   - 2.3 Movement procedure i.e. only move about in pairs etc;
   - 2.4 Establish evacuation routes;
   - 2.5 Establish a safe haven;
   - 2.6 Implement a roll call system;
   - 2.7 Establish communications protocols.

F5.6 During Operations

1. Liaison with OSOCC and/or the LEMA on safety and security issues.
2. Continually conduct a risk/hazard analysis of the BoO, travel routes and assigned work area and take appropriate mitigation action.
3. Establish BoO and work site perimeter control procedures.
4. Ensure safety and security considerations are included in the plan of action and briefings.
5. Ensure a warning system and evacuation plan is established, briefed and exercised.
6. Regular roll call of all personnel should be maintained throughout the mission.
7. Ensure that team personnel adhere to the “buddy system”.
8. Provide adequate lighting for security of BoO and work sites.
9. Continually monitor weather forecast.
10. Ensure biomedical control measures are adhered to (i.e., body recovery, patient handling, sanitation, hygiene, etc.).
11. Investigate and document all accidents.
12. Ensure personnel and equipment decontaminating practices are followed prior to leaving the work site and entering the BoO.
13. Ensure that all team personnel have reliable means of communications.
14. Ensure adequate rest, rotation, hydration, and feeding of team members.

F5.7 Reassignment / Stand-down

1. Personnel considerations during this phase include:

1.1 Mitigating fatigue;

1.2 Monitor team members for signs of stress;

1.3 Preventing loss of concentration and motivation;

1.4 Maintaining team discipline;

1.5 Ensuring regular information exchange (briefings);

1.6 Ensuring safe and secure practices are followed for the breakdown and packaging of the BoO.

F5.8 Return to Home Base

1. On the return to the home base, the following safety and security issues should be considered:

   1.1 Safety and security concerns are incorporated into the Post Mission Report. It is imperative that the safety findings and lessons learned are highlighted and incorporated into future training sessions, field exercises and operational guidelines;

   1.2 Safety equipment and supplies must be restocked.

F6 Communications

F6.1 Introduction

1. Effective communication is vital for information exchange resulting in coordinated, efficient and safe USAR operations. All USAR teams must have an ability to communicate within the team, with other actors within the theatre of operations and internationally with their home country.

F6.2 Modes Of Communication

Satellite phone
VHF / UHF radio
Internet access
Cellular phones

F6.3 Preparedness

1. Use allocated Call Signs.
2. Use the Phonetic Alphabet (Annex J).
3. Have a capacity to communicate with the team.
4. Have a capacity to communicate with other participants within the affected country.
5. Have a capacity to communicate internationally i.e. from affected country to home country.
6. Have access to field internet access.
7. Have an ability to program VHF radio frequencies.
8. Have access to and be trained in the use of GPS.

F6.4 Mobilisation

1. Complete and submit USAR Team Fact Sheet to the Virtual OSOCC.
2. Monitor the Virtual OSOCC as often as possible for information updates.
3. Update the Virtual OSOCC with ETA, point of entry and logistical support needs on arrival.
4. Complete hard copy of USAR Team Fact Sheet for submission to RDC and OSOCC on arrival in the affected country.
5. Check compatibility of VHF and UHF equipment with local systems.
6. Use internal radio frequencies until assigned radio frequencies by the LEMA or OSOCC. Program VHF radio equipment with assigned frequencies.

F6.5 Operations

1. Establish emergency signalling procedures (Refer Section M12.7).
2. Ensure contact with the BoO is maintained at all times.
3. Reserve radio communications for essential operational or emergency communication only.
4. Complete and submit the OSOCC Planning Form following every operational period.
5. Ensure daily contact with home country.

F6.6 Demobilisation

1. Ensure relevant communication links are maintained during the demobilisation phase.

F7 Media Guidelines

F7.1 Purpose

1. The general media policy for USAR Teams should be to ensure that information disseminated to the press is done so in accordance with the guidelines issued by LEMA and it must be as accurate as possible. A list of guidelines to follow when dealing with the media is available in Annex K.

F7.2 Preparedness

1. In the absence of an assigned media liaison person, the USAR Team Leader is generally the media spokesperson.
2. Ideally, USAR teams should designate specific personnel who are specially trained to be the primary contact for media relations.
3. The USAR Team should prepare media handout including information on the team capability and structure. These should be handed out to the OSOCC, LEMA and media representatives on site, if required.
4. The LEMA or OSOCC is expected to brief the press on the situation of affected areas as comprehensively as possible to ensure that the press reports objectively.

F7.3 Mobilisation

1. Upon activation, USAR Team should:
   - 1.1 Prepare a press release;
   - 1.2 Brief all personnel about the latest information and critical media issues.
2. Upon arrival, the designated USAR Team representative should:
   - 2.1 Establish contact with the OSOCC and or LEMA;
   - 2.2 Determine press protocols and ground rules;
   - 2.3 Obtain a copy of the LEMA media management plan from the OSOCC.

F7.4 Operations

1. USAR Team should develop a media plan that includes:
   - 1.1 Developing media releases and special feature stories;
   - 1.2 Managing the media on site;
   - 1.3 Participating in press conferences;
   - 1.4 Coordinating with the OSOCC, the LEMA and home base.

F7.5 Demobilisation

1. USAR Team should:
   - 1.1 Coordinate with the OSOCC and the LEMA;
   - 1.2 Prepare a press release;
   - 1.3 Participate in press conferences or exit interviews;
   - 1.4 Coordinate information with the home base regarding media issues;
   - 1.5 Determine what information and documentation can be released.

F8 Base of Operations

F8.1 Introduction

1. The USAR Team Leader is responsible for assessing the potential BoO sites identified by the OSOCC.
2. The OSOCC may task a USAR team to identify potential BoO locations for arriving international USAR Teams.
3. The BoO serves as the USAR team's site for headquarters, communications hub, sleeping/resting/eating areas, equipment stock set-up and refuge from the elements while operational in a disaster affected country.

F8.2 Preparedness

1. The USAR team is required to have sufficient logistics support, equipment and staff to set up and maintain a BoO for the duration of the mission and includes the following:

1.1 Appropriate shelter for the prevailing weather;

1.2 Power generation and lighting;

1.3 Sanitation and hygiene facilities for the team for the duration of the mission;

1.4 Sufficient food and water;

1.5 Sufficient and appropriate medical supplies;

1.6 Equipment storage and maintenance facilities;

1.7 Communications equipment;

1.8 Search dog rest and exercise areas;

1.9 Transportation.

2. A USAR team should have a pre-planned method for setting up the BoO, which has been trained and exercised and should include:

2.1 Area requirements;

2.2 Layout and design requirements.

F8.3 Mobilisation

1. The contents of the BoO should be as light as possible and should be configured in such a way that they can be conveniently packed for transportation.

2. A detailed manifest of all BoO contents should be available to aid the transportation process and entry into the affected country.

F8.4 Operations

1. The USAR team should consider the following when selecting a BoO site:

1.1 Locations provided by the OSOCC and or the LEMA;

1.2 Suitably sized areas (50m square);

1.3 Locations should be as safe and secure as the environment allows;

1.4 Close proximity to the OSOCC and work sites;

1.5 Allow easy access to transportation;

1.6 Environmental considerations (hard-surfaced, good drainage, etc);

1.7 Close proximity to logistics and support resources;

1.8 Should be situated in an area that does not influence communications (satellite);

1.9 Select and set up the site based on mission priorities and available resources to include:

1.9.1 Management area;

1.9.2 Equipment stock and maintenance area;

1.9.3 Medical treatment area;

1.9.4 Communications centre;

1.9.5 Food preparation and feeding area;

1.9.6 Personnel lodging area;

1.9.7 Sanitation and hygiene area;

1.9.8 Search dog areas;

1.9.9 Transportation access areas;

1.9.10 Vehicle parking;

1.9.11 Briefing area;

1.9.12 Generators and lighting should be strategically placed to ensure a safe and secure environment.

F8.5 Demobilisation

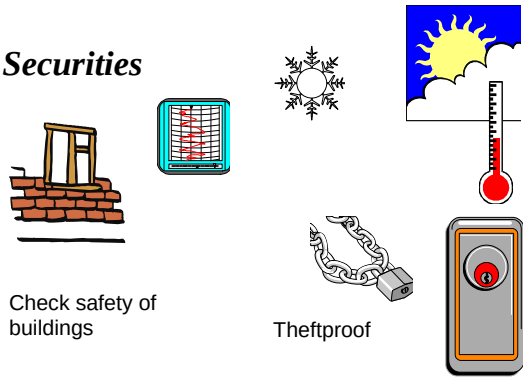
1. The BoO site should be as restored to its original state as far as is possible.

F8.6 Base of Operation Requirements

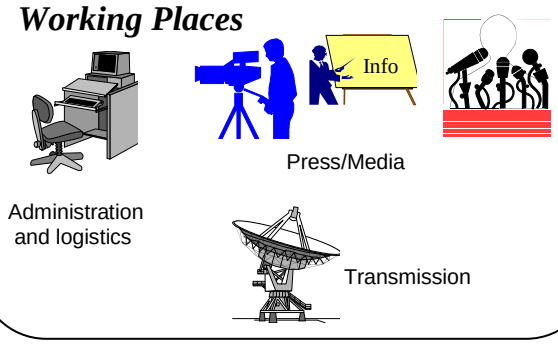
What are the needs, requirements or demands for a Basic Camp?

- Access to water, electrical power and sewerage.
- Access for cars and trucks.
- Close to the site.
- Area with 4000m^2 (50 x 36m [150 x 110 ft]) – dry, flat, demarcation, overlooking/survey.

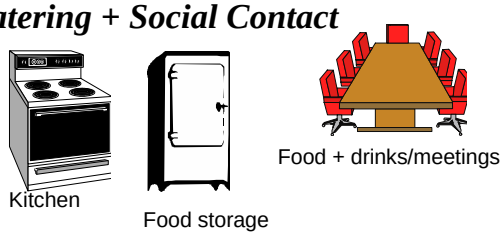
Securities



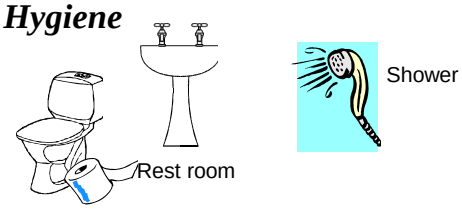
Working Places



Catering + Social Contact

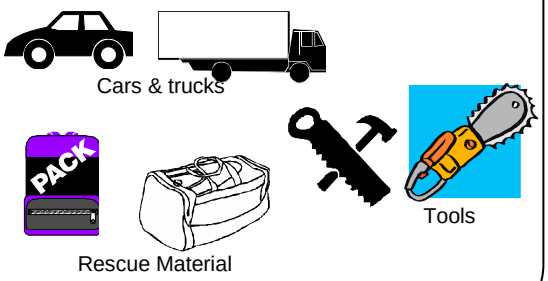


Hygiene

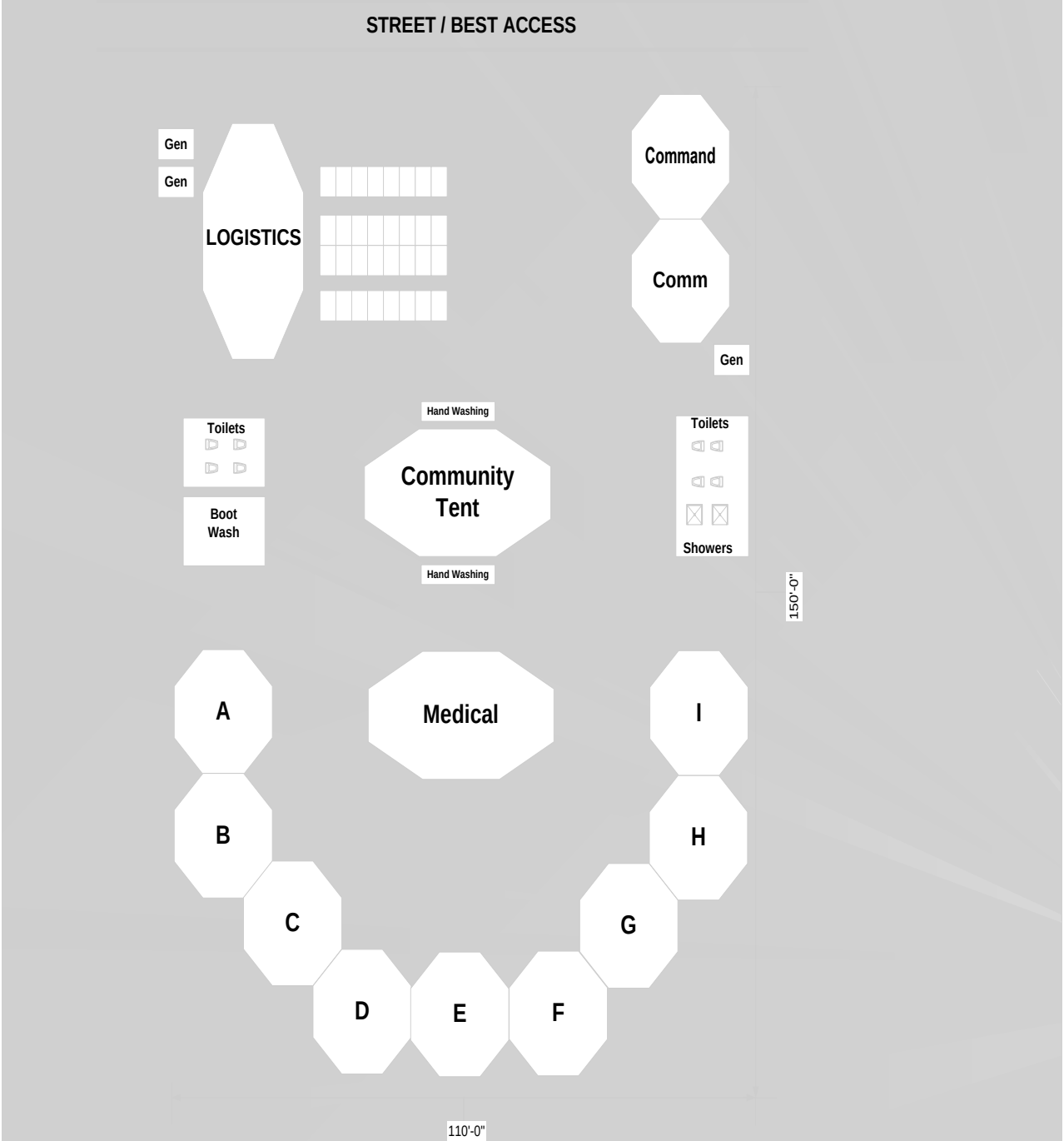


Sleep, Rest + Recreation

Parking Lot + Store Area



F8.7 Base of Operations Layout



F9 USAR Operations

F9.1 Preparedness

1. Team Management is required to:
   - 1.1 Establish National and Operational focal points;
   - 1.2 Register the USAR team in the INSARAG USAR directory;
   - 1.3 Ensure self-sufficiency for the duration of deployment;
   - 1.4 Ensure a pre-packed dedicated equipment cache so as not to deplete domestic capacity;
   - 1.5 Ensure training of personnel according to the INSARAG Guidelines and attend INSARAG meetings, workshops and exercises;
   - 1.6 Register the USAR team in the INSARAG USAR Directory;
   - 1.7 Ensure documentation is current for:
     - 1.7.1 Inoculations/vaccinations as recommended by national health authorities for travel to the affected country;
     - 1.7.2 All team members must have medical clearance for international travel;
     - 1.7.3 Passports with a minimum of 6 months validity;
     - 1.7.4 Search dogs' veterinary clearance/microchips.

F9.2 Mobilisation

1. Team management is required to:
   - 1.1 Provide and update deployment details and team capacity on the Virtual OSOCC;
   - 1.2 Collect and analyse disaster information;
   - 1.3 Exchange disaster related information with authorities in home country;
   - 1.4 Exchange information with the international community through the Virtual OSOCC;
   - 1.5 Make recommendations for deployment of the USAR team to their government;
   - 1.6 Ensure availability of a Transportation Plan (air or ground; to/within country);
   - 1.7 Communicate internally within the team;

1.8 Ensure departure within 10 hours after the request for assistance;

1.9 Provide passengers' lists and equipment manifest.

F9.3 Operations

1. USAR teams are required to:

   1.1 Follow the affected country's policies and procedures regarding incident operations;

   1.2 Perform search and rescue operations as defined in INSARAG Guidelines.

F9.4 Demobilisation

1. Coordinate the demobilisation with OSOCC and LEMA.
2. Provide resources for logistics requirements during demobilisation (preparing of manifests, packing and loading, etc.).

F10. Search Dogs

F10.1 Introduction

1. Search dogs have been used extensively and very successfully in many types search and rescue operations. Search dogs and their handlers play an integral role in USAR for the rapid detection of victims following a structural collapse. One of the major benefits of search dog teams is their capability to search large areas in a relatively short period of time, and assist USAR teams to location trapped victims.
2. Search dogs should be under the control of their handlers at all times and should not be allowed to interact with local dogs.

F10.1 Handler Requirements

1. Handlers should meet the same physical and health standard required by other USAR team Members, and should have the following knowledge and skills:

   1.1 Basic knowledge of general medical care for search dogs;

   1.2 Basic first aid training;

   1.3 Basic understanding of Incident Management;

1.4 Appropriate caging for search dogs for international mobilisation and demobilisation transportation;

1.5 Understanding of international border control processes associated with search dogs.

F10.2 Search Dog Requirements

1. Sociability
2. Basic obedience skills
3. Emergency down
4. Victim Alert
5. Basic agility skills consistent to likely disaster environment

F10.3 Certification

1. Each INSARAG USAR team should adopt its home country national standard for search dog certification. Search dog teams that do not meet their own national standard should not deploy internationally.

F10.4 Veterinary Considerations

1. Search dogs should undergo regular veterinary health checks to remain fit for international deployment, which includes de-worming.
2. Veterinary records should be available at all times to confirm the health of the search dog while on deployment.
3. Search dogs should be vaccinated as required by the home country as well as the affected country.

F10.5 Identification

1. Search dogs should be micro chipped using an ISO compatible transponder.
2. Search dogs, while not operating on the disaster site, should be under the direct control of the handler and be clearly identified as a search dog by a vest or other visible means.

F11 Work Site Triage and Structural Evaluation

F11.1 Introduction

1. When a team is assigned to an area with more than one potential site for live rescues, the order in which these sites are targeted needs to be prioritised. The process of prioritising the work sites in order to save as many lives as possible is called Triage. When the priority of the work sites is not obvious a systematic procedure is adopted to evaluate and compare key factors in order to clarify and expedite the prioritising of work sites.
2. When a work site has been assigned, a tactical plan of action is required that establishes the strategies and tactics used for the on-site operations. A tactical plan includes decisions that are directly related to the collapsed structure. In order to clarify and expedite structure-related decision-making for a tactical plan a systematic structural evaluation is performed that includes operational priorities and planning.

F11.2 Preparedness

1. The team management is required to educate and train selected USAR team members on:
   - 1.1 Causes of building collapse, with an emphasis on earthquakes;
   - 1.2 Buildings and building collapse patterns;
   - 1.3 Information gathering;
   - 1.4 Triage procedures;
   - 1.5 Structural evaluation for tactical planning;
   - 1.6 Reporting procedures regarding structural issues as determined by the structural evaluation.

F11.3 Mobilisation

1. The team management must ensure that information is collected on:
   - 1.1 The cause of the building collapse;
   - 1.2 Local construction, including:
     - 1.2.1 Building material and standards;
     - 1.2.2 Common architecture;

1.3 Prior earthquakes (or pertinent hazards) in the region and building performance under those conditions.

F11.4 Operations

1. The team management must ensure that the following steps are taken:
   - 1.1 The area or zone that the triage is supposed to cover is clearly identified;
   - 1.2 Mobility and size of group performing the triage is taken into consideration when deciding size and location of each triage zone;
   - 1.3 Totally and partially collapsed structures within the designated zone are identified and determined to be potential work sites;
   - 1.4 Information is collected from local teams or survivors in the area on issues that may affect the work site triage, including:
     - 1.4.1 Missing people and indications about victims inside buildings;
     - 1.4.2 The structures such as use, layout, construction, etc;
     - 1.4.3 Information on any prior search and rescue attempts.

F11.5 Definitions for Triage Factors

TRIAGE FACTOR	DEFINITION
Big Void	A *big void* is a void big enough for a grown person to move in (a little larger than the person). The chances of sustaining injuries are less in larger voids and thus increasing the chances of survival. If victims are children, “big” and “small” voids relate to the size of a child.
Small Void	A *small void* is where a grown-up can hardly move and has to lie more or less still while waiting for help. As the voids get smaller, the chances of injury are higher and chances of survival become lower. If victims are children, “big” and “small” voids relate to the size of a child.
Stable	A *stable* structure does not require additional safety shoring prior to the rescue operations. This does not refer to shoring inside the building for direct rescue operations.
	An *unstable* structure needs to be stabilised by shoring or by other

Unstable	mitigation measures before operations directed at accessing voids can start. Therefore, more time is required to access voids than when no additional safety shoring is required.
Extreme Instability	An *extremely unstable* structure is judged extremely unsafe for operations (likely to collapse in a medium aftershock or due to rescue operations). This category is only used when a team decides not to operate in the building, regardless of victim information, due to stability concerns. Can be interpreted as "no go for now" and should be reported to LEMA/OSOCC.
Access	*Access* to voids is judged by the *time* estimated to reach the victims or priority voids. The estimation is based on the difficulty of the operations, e.g. building material, equipment used and the amount of work needed. Determining the exact time is not necessary; it is more important to *compare* how long it will take to access the different structures. Judging access is difficult from outside the structure, but needs to be considered.

F11.6 The 8 Triage Categories

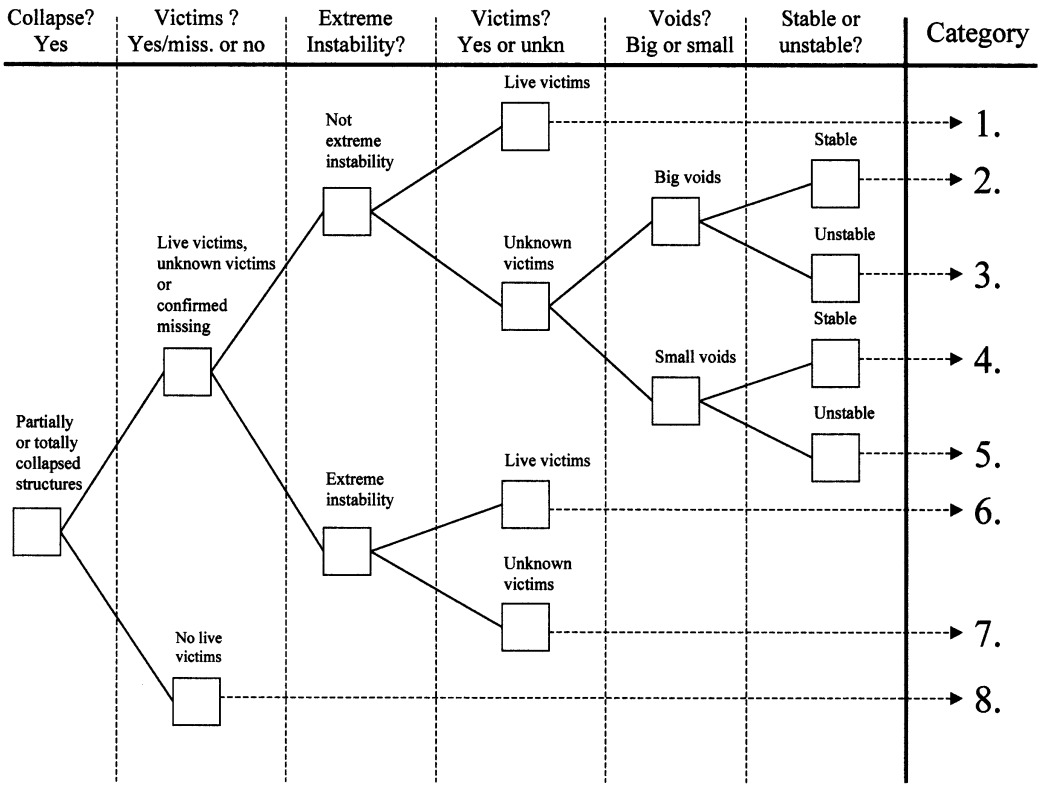
	Victim Status	Void Size	Stability Level
1.	Live victims		Stable or unstable
2.	Unknown victims	Big Voids	Stable
3.	Unknown victims	Big Voids	Unstable
4.	Unknown victims	Small Voids	Unstable
5.	Unknown victims	Small Voids	Unstable
6.	Live victims		Extreme Instability*
7.	Unknown victims		Extreme Instability
8.	No live victims		

* Category 6 is only used if and when a team decides not to perform any USAR activities in regards to the building, reports the building to OSOCC or LEMA, and moves on.

F11.7 Triage Table

Live victims	1	1	6
Unknown victims *and* Big voids	2	3	7
Unknown victims *and* Small voids	4	5	7
	Stable	Unstable	Extreme instability

M11.8 Triage Tree



1. Each work site is placed in a triage category based on:
   - 1.1 Victim information – number of detected versus number missing;
   - 1.2 Evaluation of voids – based on dimension;
   - 1.3 Evaluation of stability – what degree of shoring is required;

2. The work sites in each category are compared to each other and prioritised based on victim information, voids and stability. Expected time to access victims or priority voids should be taken into account and is dependent on the capability of the team. This results in a list of work sites in order of operation. However, the team management may decide to rearrange the order because of operational or other constraints (this may be known before triage is performed and should be taken into account), including:
   - 2.1 Transport required to access the site;
   - 2.2 Availability of specialised equipment;
   - 2.3 Security and cultural factors;
   - 2.4 Age of victims (for example a school and an old people's home);
   - 2.5 Priorities set by LEMA;
   - 2.6 New information.
3. The final list is reported to:
   - 3.1 The team in order to commence operations at the chosen work sites;
   - 3.2 The OSOCC and LEMA.
4. The team management is required to:
   - 4.1 Ensure that information gained during the triage of confirmed live victims is reported to the team for immediate consideration, even though the triage process may not yet be complete;
   - 4.2 Report immediately to the OSOCC and LEMA any work sites that have confirmed live victims that the team does not have the capacity to work on, for immediate dispatch of more teams to the area.

F11.9 Structural Considerations

1. For each chosen work site, the USAR team will take the following structural factors into consideration during a structural evaluation for the tactical planning:
   - 1.1 Original building footprint and layout;
   - 1.2 Height;
   - 1.3 Type of building;
   - 1.4 Use of the building;
   - 1.5 Collapse pattern;

1.6 Why did it fall down?

1.7 How did it fall down?

1.8 What stopped the fall?

1.9 Local failures, by evaluating damages (i.e., the remaining strength) to:

- 1.9.1 Columns;
- 1.9.2 Walls;
- 1.9.3 Beams;
- 1.9.4 Floors;
- 1.9.5 Connections.

1.10 Voids that may have live victims, based on:

- 1.10.1 Information from locals;
- 1.10.2 Indications, like sounds, etc.

1.11 Voids created by the structure and its contents;

1.12 Structural factors concerning operational priorities, including:

- 1.12.1 Access to priority voids;
- 1.12.2 Mitigation priorities;
- 1.12.3 Entrance and egress possibilities;

1.13 Structural factors for search activities, including:

- 1.13.1 Entry points;
- 1.13.2 Search and escape routes;

1.14 Structural factors for rescue activities, including:

- 1.14.1 Entry points;
- 1.14.2 Access routes;

1.15 Shoring for:

- 1.15.1 Safe penetration into the structure;
- 1.15.2 Mitigation purposes;

1.16 Evacuation plan, such as:

- 1.16.1 Safe havens;
- 1.16.2 Evacuation routes;
- 1.16.3 Safe assembly locations;

1.17 Stability monitoring and warning systems for:

- 1.17.1 Slow moving settlement;

1.17.2 Further collapse.

F11.10 Demobilisation

1. The USAR team is required to brief LEMA on structural stability concerns and make recommendations regarding demolition to reduce hazards to survivors. All structural reporting forms should be handed over to LEMA.

F12 USAR Team Marking and Signalling

F12.1 Introduction

1. The aim of the Marking and Signalling system is to provide specific information regarding assessment and operational results to ensure optimal coordination on a work site.
2. The following is defined:
   - 2.1 Team function identification;
   - 2.2 General Area Marking;
   - 2.3 Structure Orientation;
   - 2.4 Cordon Markings;
   - 2.5 Structure Assessment;
   - 2.6 Signalling procedures;
   - 2.7 Mapping symbols.

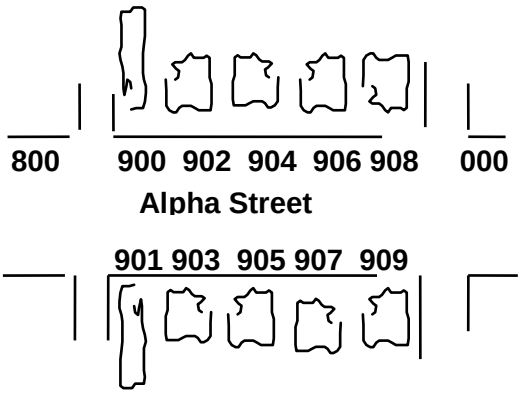
F12.2 Team Function Identification

1. Response team identity (country and team name) by uniform, patch, etc.
2. Personnel – the following positions must be colour-coded and labelled in English plain text (vests, arm bands, helmet colour, etc).
   - 2.1 Management position(s) — white
   - 2.2 Medical position(s) — red cross/crescent
   - 2.3 Safety/security position(s) — orange
3. Vehicles must be marked with team name (flag, magnetic sign, etc).

M12.3 General Area Marking

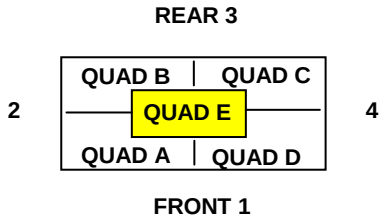
1. Orange spray paint is to be used for all markings.
2. Assigned area or work sites are to be identified individually:
   - 1.1 Address or physical location;
   - 1.2 Landmark or code name (e.g. sugar factory building 1);
   - 1.3 Mapping coordinates or GPS;
   - 1.4 If no maps are available, sketch maps are to be produced and submitted to the OSOCC \ LEMA;
   - 1.5 When producing maps, primary geographical identification should be the existing street name and building number, when possible. If this is not possible, landmarks should be used as reference and should be used universally by all actors.

Street & Number Identification



F12.4 Structure Orientation

1. Structure orientation includes both an exterior and interior identification:
   - 1.1 **Exterior Identification**
     - 1.1.2 The street address side (FRONT) of the structure shall be defined as “1”. Other sides of the structure shall be assigned numerically in a clockwise manner from “1” (see graphic below).



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1.2 **Interior Identification**

1.2.1 The interior of the structure will be divided into QUADRANTS. The quadrants shall be identified ALPHABETICALLY in a clockwise manner starting at the corner where side “1” (FRONT) and “2” meet. Quadrant E (central lobby, elevators, staircases, etc) applies to buildings with multiple storeys. (see graphic above).

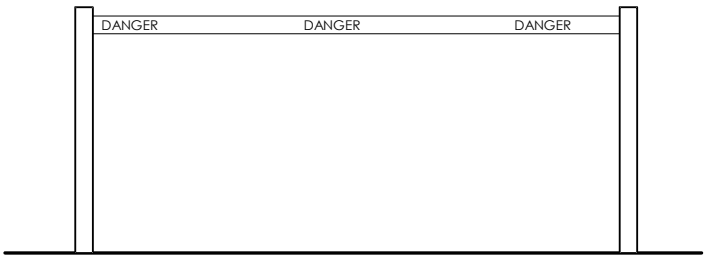
1.2.2 Multi-storey structures must have each floor clearly identified. If not obvious, the floors should be numbered as viewed from the exterior. The grade level floor would be designated the “ground floor” and, moving upward the next floor would be “Floor 1”, etc. Conversely, the first floor below grade level would be “Basement-1”, the second “Basement-2”, and so on. (see graphic below).

Floor 3
Floor 2
Floor 1
Ground Floor
Basement – 1
Basement – 2

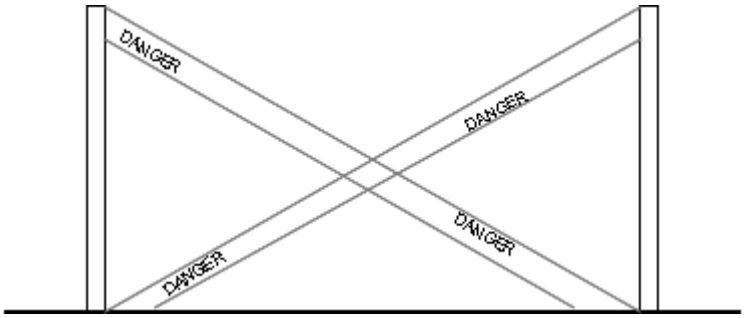
F12.5 Cordon Markings

1. Cordon markings are used to identify operational work zones as well as hazardous areas in order to restrict access and warn of dangers.

Operational Work Zone



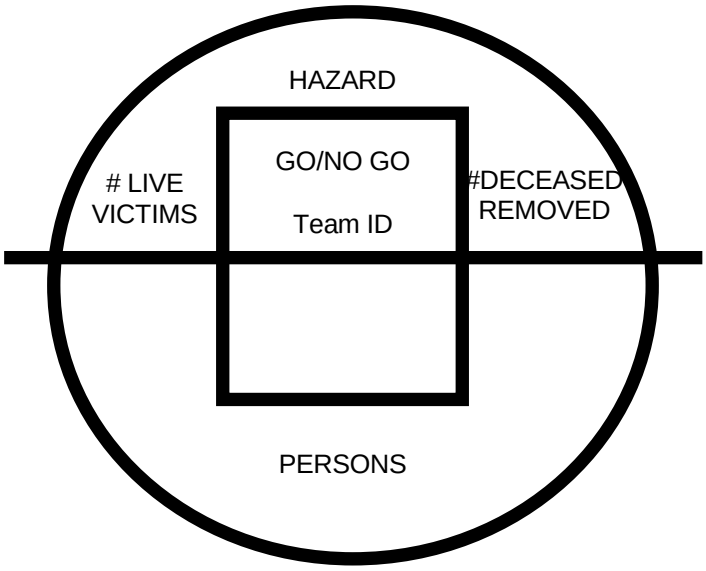
Hazard Zone



F12.6 Structural Marking

1. Structural marking should be applied on collapsed structures assessed by USAR teams. The marking should be placed near the point of entry on the exterior of the collapsed structure that offers the best visibility. All assessment results are to be reported to the OSOCC immediately.
2. The marking consists of a 1 X 1 meter square box
3. Inside the box:
   - 3.1 **Go** if deemed safe to enter;
   - 3.2 **No Go** if it is deemed unsafe to enter;
   - 3.3 Team identification;
   - 3.4 Date and time start;
   - 3.5 Date and time finish.
4. Outside the box:
   - 4.1 Hazard information (top);
   - 4.2 Missing persons (bottom);
   - 4.3 Live victims extricated (left);
   - 4.4 Dead victims removed (right).
5. Additional Information:
   - 5.1 When the USAR team has completed work on the structure to its capacity, a circle is to be drawn around the entire marking;

5.2 After the all work on the structure has been completed and it is confirmed there are no more victims, a horizontal line is to be drawn through the entire marking.



F12.7 Signalling

1. Effective emergency signalling is essential for the safe operation at a disaster site.
2. All USAR team members should be briefed regarding emergency signals.
3. Emergency signals should be universal for all USAR Teams.
4. Signals must be clear and concise.
5. Team members are required to immediately respond to all emergency signals.
6. Air horns or other appropriate hailing devices should be used to sound the appropriate signals as follows:

Evacuate

— — —

(3 short signals, 1 second each – repeatedly until site is cleared)

Cease Operations – Quiet

———————

(1 long signal, 3 seconds long)

Resume Operations

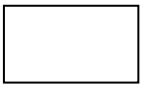
(1 long signal + 1 short signal)

F12.8 Symbols

(The symbol name in plain text should appear adjacent to the symbol)

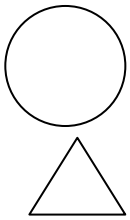
Zones - irregular shapes

Functions– box



Facilities– circle

Reference point – triangle



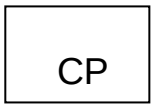
Time denoted (with arrow pointing to activity site, local time)

22/11 0700 hrs

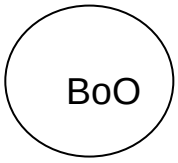
23/11 1900 hrs

Sample symbols:

Command Post



USAR Base of Ops



OSOCC	OSOC
Reception/Departure Centre	**R/D C**
Work Site	Work Site
Airport	Airport
Hospital	Hospital
Hazards (write hazards and specify zone)	GASES
Fuel	Fuel
Medical care (Red Cross/Crescent)	X

Reference point/landmark (include descriptor)

F13 Hazardous Materials Operations

F13.1 Introduction

1. By definition, international USAR teams locate, extricate, and provide emergency medical treatment to victims entrapped during structural collapse. In some cases, these collapses result from manmade causes that may include the release of nuclear, biological, or chemical contaminants, either singly or in conjunction with an explosive or incendiary mechanism. Medium and Heavy USAR teams are required to detect and isolate hazardous materials.

F13.2 Strategic Considerations

1. Medium and Heavy international USAR teams need to possess the inherent knowledge to recognize a hazardous environment, thus preventing harm, injury or death to its members and the affected population. It is also expected to be able to communicate its findings regarding contamination with LEMA, OSOCC and other relevant actors. As indicated, an international USAR Team should:
   - 1.1 Have the ability to recognise situations where contaminant(s) may be suspected;
   - 1.2 Possess the technical expertise to offer sound advice to LEMA, OSOCC and other actors;
   - 1.3 Possess the capability to provide protection for team members by performing environmental detection and monitoring;
   - 1.4 Implement basic decontamination procedures.

F13.3 Operational Strategies and Considerations

1. If a determination is made that a site is contaminated, **NO USAR OPERATIONS WILL BE CONDUCTED** until an appropriate assessment and if required, isolation has been conducted.

F13.4 Decision Process Considerations

1. A risk benefit analysis based upon hazard/risk assessment and the site survey.
2. Teams must evaluate the risk in relation to the rescue of viable victims versus recovery of the dead.
3. Operational considerations at Work Sites:
   - 3.1 Oxygen Levels;
   - 3.2 Flammability of substance or surrounding atmosphere;
   - 3.3 Toxicity levels;
   - 3.4 Explosive limits;
   - 3.5 Radiological monitoring.

F13.5 Other Considerations

1. Condition of voids –If the hazard can be easily isolated or mitigated, the situation is considered handled and operations are to continue.
2. Time required to access victims – this will be an estimate of the time required to get to the first victim. It should include the time it would take to mitigate hazards, cut through floors, walls, roofs, etc, and to shore and brace the access route as well as relevant adjacent structures if required.
3. Special occupancy information – increased attention and monitoring will be given to certain types of target hazards, especially those involving nuclear energy, radiological elements, specialised military facilities, chemical manufacture, and biological production or storage.
4. Decontamination – careful planning is needed to ensure the team has procedures in place that provides adequate decontamination of members including search dogs.
5. "NO GO" conditions – are dependant upon:
   - 5.1 Time required to complete the assignment;
   - 5.2 Protection and limitations of available PPE;
   - 5.3 Results of the risk benefit analysis;
   - 5.4 Resource status;
   - 5.5 Security and safety considerations.

F13.6 Detection and Monitoring

1. Detection and monitoring is required of both the Operational Work Sites and BoO.
2. Operational Work Site detection and monitoring will be performed by the assigned HAZMAT specialist in the team including:
   - 2.1 Safe perimeters of each assigned structure;
   - 2.2 Entry points of each assigned structure;
   - 2.3 Additional voids or potential spaces encountered during operations;
   - 2.4 Decontamination sites;
   - 2.5 Assigned tools and equipment;
   - 2.6 Assigned transportation vehicles.

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G ESTABLISHING URBAN SEARCH AND RESCUE CAPACITY

G1 Introduction

1. A USAR team is an extremely costly and complex entity to develop and maintain, and it is infrequently used to its full extent, even during international disaster response. The USAR response system must form an integrated part of a holistic, autonomous disaster management response framework and is just one component of an overall emergency and disaster response model (Figure 2).

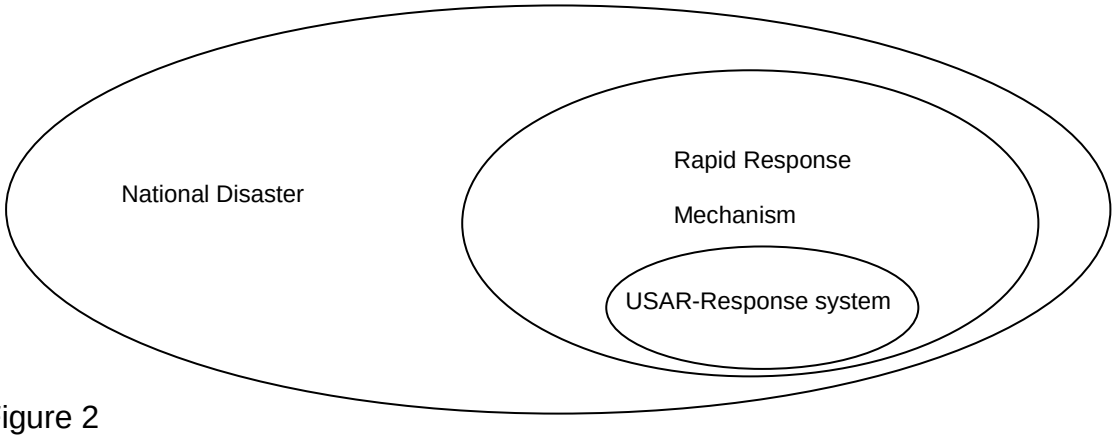

Figure 2

2. Incidents such as motor vehicle accidents and fires are a common occurrence, whereas earthquake, floods and landslides occur less frequently (Figure 3). Emergency response capacity development should be designed around commonly occurring incidents, however, it must be designed in a manner that allows it to be scalable when required.

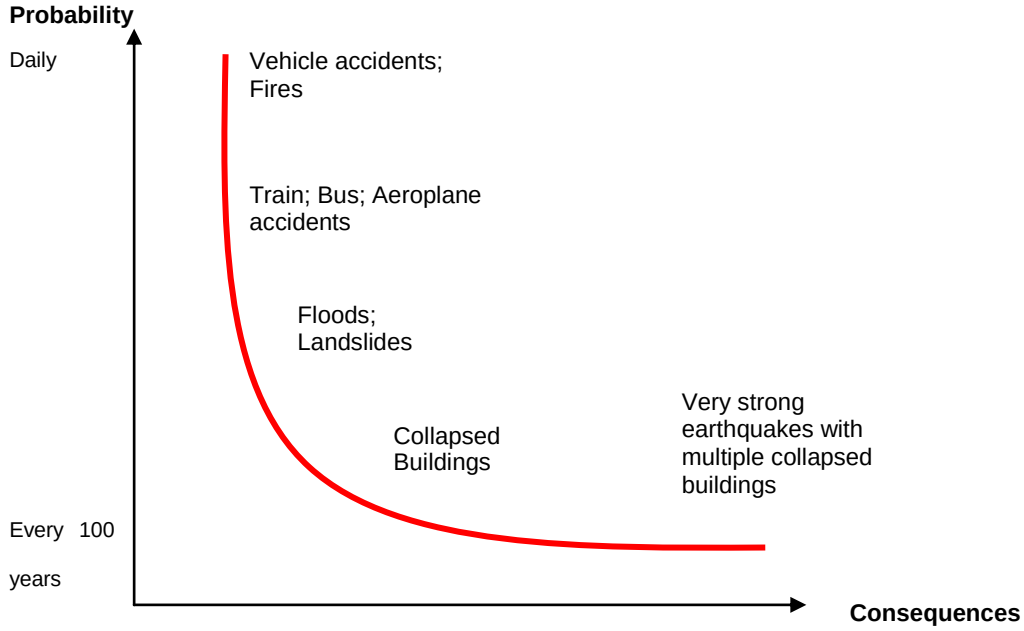

Figure 3

3. To develop a USAR Team with a heavy operational capability in accordance with the INSARAG guidelines would require approximately three years (Figure 4). It must be noted however that during the development phase, the team would be available to respond as and when required.

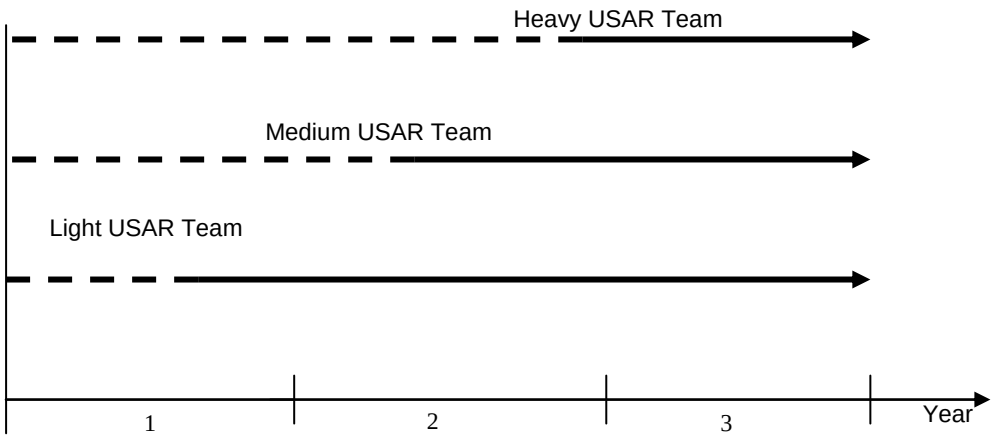

Figure 4

G2 USAR Response Framework

1. The USAR Response Framework encompasses all levels of response, whether it is a spontaneous community response driven by need or the international response of a highly sophisticated USAR team (Figure 5). The

extent of the damage and destruction will determine what level of assistance is required. Only when the capacity of the affected country is exceeded and an official request for international assistance is made will there be an international response. International USAR response is the most infrequent form of USAR response. Therefore, in order for a USAR team to be effective in the international arena, it should be used for domestic incidents whenever the need arises to ensure the activation and response mechanism is regularly tested and refined and to ensure the team maintains a high level of technical expertise.

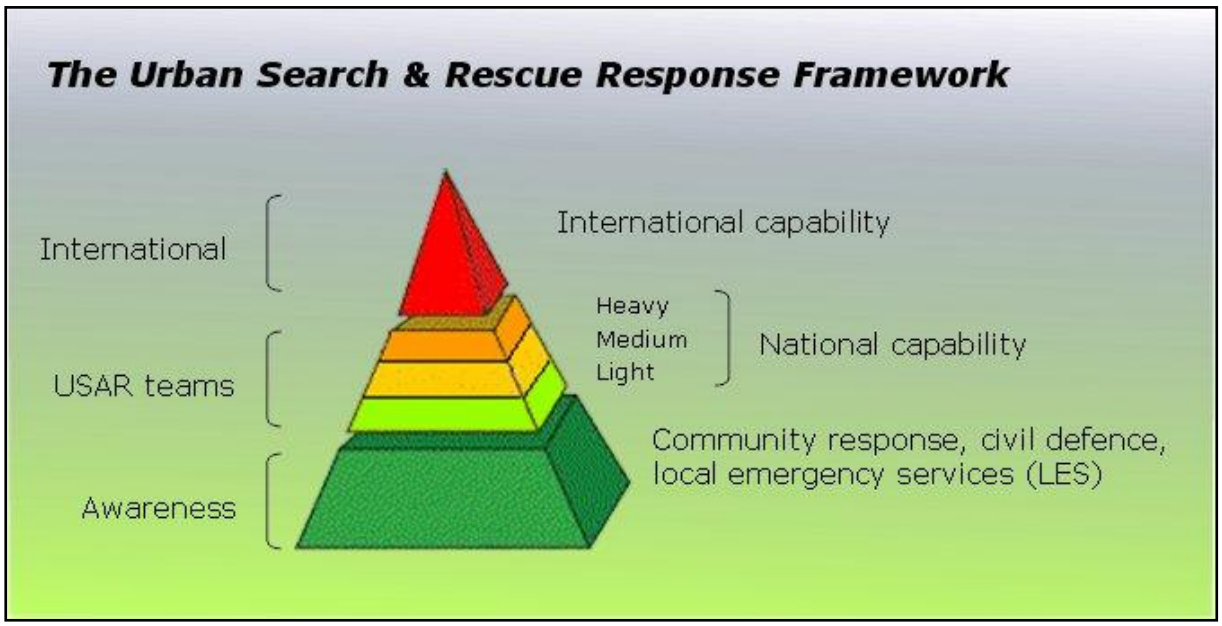

Figure 5

2. In Figure 6 below, it is clear how USAR team members, USAR components and finally a USAR team can be effectively utilised through all sizes of incidents ranging from regularly occurring emergencies to a major earthquake.

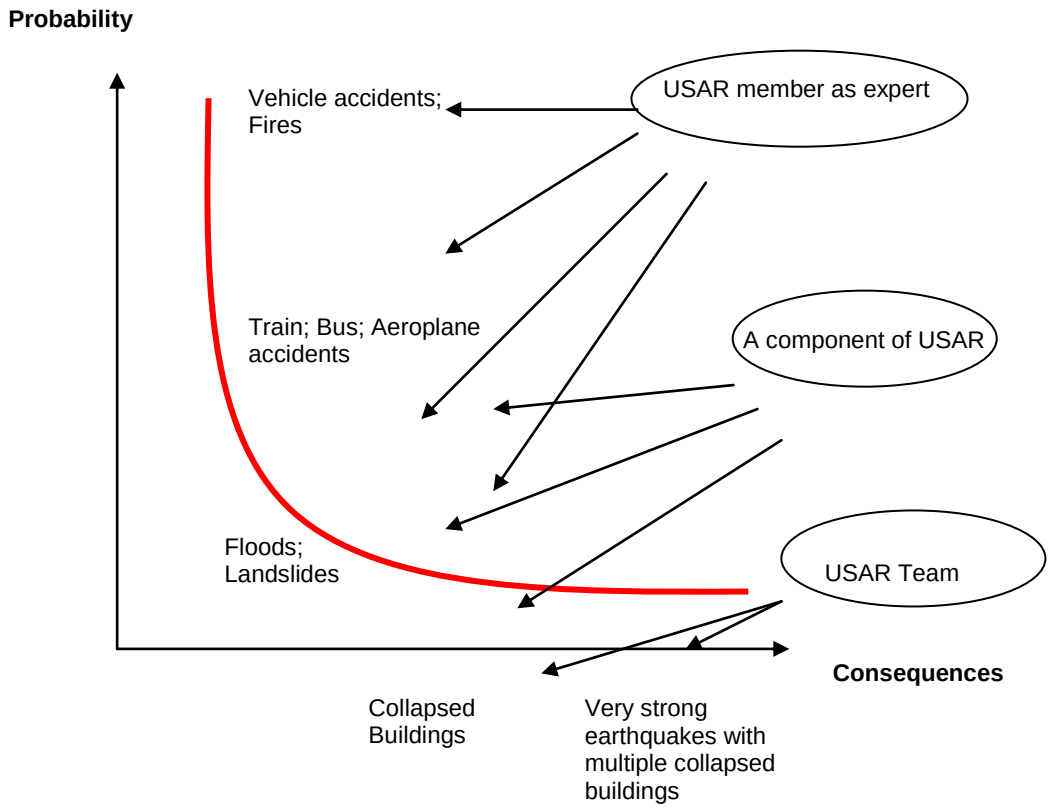

Figure 6

G3 USAR Executive Management

1. The development and maintenance of an effective USAR response system requires a well organised management structure. Below is a list of the duties and responsibilities required from the Executive Management of a USAR Team.

G3.1 Management & Administration

1. The management has to direct the USAR Team and is responsible for maintaining a high level of preparedness and ensuring rapid mobilisation when required. In addition, they are required to prepare and manage the annual budget, implement SOP's, collect and store all relevant data, especially for international travel and maintain the facilities of the USAR team.

G3.2 Technical Responsibilities

1. The main duty of the technical staff is the maintenance and storage of the team's equipment. This responsibility includes market evaluation for new technology, selecting and purchasing new equipment as well as for the replacement of non-functional equipment.

G3.3 Staff & Recruitment

1. The staff & recruitment office is responsible for all recruitment of team members and maintaining a human resources file for each team member. The currency of travel documentation, vaccinations and inoculations of all team members is also their responsibility and they are required to ensure that all team members are medically fit for deployment.

G3.4 Training

1. The training department is responsible for the identification of training needs and the design of a training schedule to ensure identified training needs are addressed. They are also required to schedule training exercises that incorporate all components of the team and simulate real life conditions.

G4 USAR Team Structure

1. The USAR Team structure and components should reflect the requirements at which the team is expected to perform according to its INSARAG Classification.

2. A USAR Team requires competency in search, rescue and emergency medical care to fulfil the functions required during USAR operations. Additionally, there is a management component to provide leadership and command and a logistic component to support the team. Table 1 identifies the minimum personnel requirements for a Heavy USAR Team.

Table 1

Minimum Personnel Requirement for a Heavy USAR-Team

Component	Tasks	Minimum Staff	
Management	Command Liaison / Coordination Planning / Follow up Media / Reporting Assessment / Analysis Safety / Security	Team Leader/Deputy Liaison Officer / Deputy Structural Engineer	2 2 1
Search	Technical Search Canine Search Hazmat Assessment	Technical Search Dog Handler	2 4
Rescue	Breaking & Breaching Cutting Lifting & Moving Shoring Technical Rope	Rescue Team Leader Rescuer Technicians	4 24
Medical	Team Care (Personnel & Search Dogs) Victim Care	Medical Doctor Paramedics / Nurses	1 2
Logistics	Base of Operations Water supply Food supply Transport capacity Fuel supply Communications HAZMAT isolation	Logistics Team Leader HAZMAT Specialists Logisticians / water Base Manager Transport Specialist	1 1 1 2 1
TOTAL			**48**

G5 Training

1. Training is critical to the successful implementation of a USAR Team and has to include all the components of the team.

G5.1 Executive Management Training

1. The training requirements of executive management will be determined by who is recruited. Table 2 identifies ideal backgrounds required by candidates and likely additional training that would be required.

Table 2

Function	Required Background	Additional training
Management Director/Deputy Finance Home Base Manager Preparedness Information management	Academic degree in i.e. engineering, disaster management. Experience from USAR operations	International training, i.e. UN, EU. Actual work with responsible foreign authority.
Technical Head Purchasing Maintenance Storekeeper	Academic degree in engineering. Professional technician and repairer.	Special equipment, use and maintenance. Specialist training delivered by supplier.
Staff Head Recruitment Admin Health/vaccination Visa/passports	Academic degree in personnel management. Qualified in international travel arrangements, incl. Health, visas etc.	UN admin training, health, admin and travel agency training.
Training Head Instructors Planning Conduction Facility Manager	Academic degree teaching. Emergency experience Instructor experience. Professional facility manager.	International training as mentioned above.

G5.2 USAR Team Training

1. The training requirements of USAR Team members will be determined by who is recruited. Table 3 identifies ideal backgrounds required background of candidates and likely additional training that would be required.

Table 3

USAR Component	Required Background	Additional training
Management Team leader/Deputy Liaison Officer/Deputy Structural Engineer	Academic degree, leadership qualities, Incident Command System experience. Academic degree in Structural Engineering. English.	Command and Management skills; International Training Exercises
Search Dog Handler Technicians	Experienced Dog Handler. Background in electronics, proven ability.	Dog handling Technical training HAZ-MAT exercises
Rescue Rescue Team leader Rescuer	High-school , leadership & English Experienced rescuer & tactical knowledge	Technical training Methodology Rescue tactics Exercises
Medical Medical doctor Paramedics	Doctor in clinical practice. Advanced life-support, i.e. paramedic or nurse.	Pre-hospital trauma training Exercises
Logistics Team leader Transport specialist HAZ-MAT specialist Camp manager Logisticians	Pay-load master from commercial air-company. Chemical engineer with experience Water technician.	Air transport safety training Logistics HAZ-MAT Exercises

2. All USAR Team members should undergo a basic training program, which covers the following:
   - 2.1 First aid training
   - 2.2 Basic communications
   - 2.3 INSARAG Awareness Training Course
   - 2.4 Rescue related English (If required)
   - 2.5 Safety & security
   - 2.6 Techniques and tactics in rescue operations
   - 2.7 USAR Ethics considerations

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N LIST OF ACRONYMS

ALS	Advanced Life Support
BLS	Basic Life Support
BoO	Base of Operations
E	Estimated Time of Arrival
FCSS	Field Coordination Support Section
FP	Focal Point
GA	General Assembly
GPS	Global Positioning System
HAZMAT	Hazardous Materials
IEC	INSARAG External Classification
IFRC	International Federation of Red Cross and Red Crescent Societies
IHP	International Humanitarian Partnership
INSARAG	International Search and Rescue Advisory Group
ISO	International Organisation for Standards
LEMA	Local Emergency Management Authority
NGO	Non Government Organisation
OCHA	Office for the Coordination of Humanitarian Affairs
OSOCC	On-Site Operational Coordination Centre
PPE	Personal Protective Equipment

RDC	Reception Departure Centre
SOP	Standard Operating Procedure
TOR	Terms of Reference
UHF	Ultra High Frequency
UN	United Nations
UNDAC	United Nations Disaster Assessment and Coordination
USAR	Urban Search and Rescue
VHF	Very High Frequency
24/7	Available 24 hours a day 7 days a week

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ANNEX A: INSARAG AWARENESS TRAINING MODULE

1. Background

1. Within the framework of the implementation of GA Resolution 57/150 of 16 December 2002, the INSARAG community determined the need for a standardised training programme to increase awareness and improve the preparedness of local and international response USAR teams, improve local capacity in disaster prone countries and achieve a more effective level of coordination and utilisation of international teams responding to a disaster affected country.

2. Objective

1. The objective of the INSARAG Awareness Training Module is to introduce the INSARAG guidelines as a tool for international USAR response, and the coordination methodology to disaster managers and international response organisations.

3. Target Audience

1. The number of attendees should not exceed 30 participants from the host nation and neighbouring countries. Participants should include:

1.1 Host country:

1.1.1 Disaster managers at all administrative levels
1.1.2 Border authorities (customs and immigration)
1.1.3 Department of Health
1.1.4 National disaster response teams
1.1.5 United Nations representatives as appropriate

1.2 International disaster response organisations:

1.2.1 Country and team INSARAG focal points
1.2.2 Disaster managers
1.2.3 USAR team leaders
1.2.4 USAR team liaison persons
1.2.5 IHP support staff

4. Critical Training Points and Topics

1. Presentation material should ideally be translated prior to course (host country)
2. Presentation material should be well illustrated where appropriate UN OCHA
3. Internet connectivity in main lecture hall
4. Establish a RDC
5. Establish an OSOCC
6. USAR operations planning meeting in the OSOCC

5. Sample Course Schedule for INSARAG Awareness Training Module

Day 1	Topic	Format
09h00–09h30	Opening address and welcome	
09h30–10h30	Host country risk profile and disaster management plan	Presentation
10h30-11h00	Break	
11h00-11h30	▪ Challenges in international USAR response ▪ INSARAG Overview ○ GA Resolution 57/150 ○ Mandate & Structure ○ Guidelines & USAR Classification	
11h30-12h00	INSARAG coordination tools overview ▪ Virtual OSOCC ▪ UNDAC ▪ LEMA ▪ RDC ▪ OSOCC ▪ IHP Support Modules	Presentation
12h00-13h00	Responsibilities: ▪ Member Countries ▪ Office for the Coordination of Humanitarian Affairs (UN OCHA) ▪ International USAR teams	Presentation
13h00-14h00	Lunch	

Day 1	Topic	Format
	Preparedness and Mobilisation	
14h00-14h30	Alert and Response Mechanisms	Presentation and workshop
14h30-16h00	Reception Departure Centre	Presentation and workshop
16h00-16h30	Break	
16h30-17h00	Feedback	
17h00	Close	

Day 2	Topic	Format
	Operations Phase	
09h00-10h30	OSOCC	Presentation and workshop
10h30-11h00	Break	
11h00-12h30	Operations planning	Presentation and workshop
12h30-13h30	Lunch	
13h30-14h00	Feedback	
14h00-15h30	Marking System	Demonstration and workshop
15h30-16h00	Break	
16h00-17h00	Course evaluation	
17h00	Close	

ANNEX B: URBAN SEARCH AND RESCUE EXERCISE

1. Background

1. After the adoption of GA Resolution 57/150, the INSARAG Regional Groups Africa/Europe, Asia/Pacific and the Americas recommended utilising national and international USAR exercises as vehicles to train and practice the INSARAG methodology.

2. To train all components involved in the coordination of international response, and in order to save costs for participating organisations and the host country, it was recommended to conduct these exercises as command-post exercises for international participants, with a small UNDAC team and only the management components of foreign USAR teams (up to 5 persons each).

3. Regional INSARAG USAR exercises aim to increase the awareness of INSARAG disaster response methodology among national and local authorities in the host country, and to practice coordination and cooperation between international and national responders in major disasters resulting in collapsed structure.

4. The exercise scenario is based on a disaster, which overwhelms local and national response capacity. This results in a request for international USAR assistance from the affected country and the dispatch of an UNDAC team.

2. Objectives

1. The objective of the INSARAG USAR exercise is to introduce and practice INSARAG disaster response methodology and includes the following:
   - 1.1 International alert and notification procedures on the Virtual OSOCC
   - 1.2 Mobilisation of international USAR teams
   - 1.3 Dispatch of an UNDAC team
   - 1.4 Demonstrate assessment techniques and information management
   - 1.5 Demonstrate joint operations planning by international USAR teams and

LEMA in the OSOCC

1.6 Demonstrate host country disaster management mechanisms for the arrival, coordination and utilisation of international USAR assistance

1.7 Demonstrate the role of the in-country United Nations representatives

3. Target Audience

1. Host country:

1.1 Disaster managers at all administrative levels

1.2 Border authorities (customs and immigration)

1.3 Department of Health

1.4 National disaster response teams

1.5 United Nations representatives as appropriate

1.6 Media

2. International disaster response organisations:

1.1 Country and team INSARAG focal points

1.2 Disaster managers

1.3 International USAR team leaders, operations managers and liaison persons

1.4 USAR team liaison persons

1.5 IHP support staff

1.6 UNDAC team

1.7 Other national and international disaster response organisations, as appropriate (UN, NGOs, media, military, etc.)

4. Exercise Outline

1. The INSARAG USAR exercise is typically a national exercise, which includes an international component. The exercise will be conducted in close cooperation with LEMA and, where appropriate, the UN country team. Host country customs and immigration authorities should also participate.

2. The exercise should be preceded by a two day INSARAG Awareness Training module to provide participants with a basic knowledge of the UN and INSARAG

disaster response methodologies to enable effective execution of the exercise. The exercise is not intended to be a performance evaluation but serves to provide a learning environment for participants. The exercise will not continue throughout the night.

3. The exercise is inject-driven, meaning participants are confronted with an initial situation (e.g. earthquake) in which only limited information about the situation is provided so as to simulate the real life availability of information in a comparable major disaster. Additional information is injected by role-players through various channels such as media reports, Virtual OSOCC, meetings and field assessments as the situation evolves. Situation developments may also be self-generated by the activities of participants (e.g. assignment of resources after the evaluation of assessment results).

4. A briefing involving all exercise actors will be held at the end of each day to review the current state of the exercise in order to confirm aspects progressing well and provide direction for improvement where the methodology is not applied. The debriefing provides an opportunity for exercise actors to provide feedback to exercise organisers and to clarify any misunderstandings.

5. Injects

1. Injects will aim to replicate the real life situation as far as possible. The following principles have to be applied in the conduct of inject-driven exercises:
   - 1.1 Injects should not conflict with national disaster management objectives
   - 1.2 Exercise organisers will develop an initial timeline for introduction of injects to avoid unrelated inputs that interfere with the exercise objectives
   - 1.3 Injects will support training objectives
   - 1.4 Injects will be balanced according to the following criteria:
     - 1.4.1 Pertinent information that requires a decision or a product (most frequent)
     - 1.4.2 False information to trigger information management processes

(as appropriate).

1.4.3 Conflicts requiring immediate action (as needed)

6. Exercise Planning Timetable

1. Exercise preparation by organisers - **one day** and includes:
   - 1.1 Exercise organiser
   - 1.2 Role players

2. INSARAG Awareness Training module - **2 days** and includes:
   - 2.1 Exercise participants
   - 2.2 Exercise organisers

3. Command-post exercise - **2 days** and includes:
   - 3.1 Exercise participants
   - 3.2 Exercise organisers

4. The exercise will be carried out in the following phases:
   - 4.1 Mobilisation of national resources
   - 4.2 Arrival of UNDAC
   - 4.3 Arrival of international USAR teams and RDC Centre operations
   - 4.4 OSOCC
   - 4.5 Assessment and operations planning
   - 4.6 Transition from rescue to relief phase

7. Exercise Preparation

1. Ensure adequate notice is given with regard to the planned date
2. Agreement of date and venue between host country and OCHA (6 - 12 months prior)
3. Announcement of the exercise to INSARAG community
4. Preparatory meeting of exercise organisers in host country (3 months prior)
5. Invitation of participants (3 months prior)
6. Final preparatory meeting (1 day prior)

8. Resources

1. 1 Exercise Director (Host Country)
2. 1 Exercise Director (INSARAG Secretariat)
3. 1 Secretary (Host Country)
4. 1 Exercise facilitator (at the airport - Host Country)
5. 1 Exercise facilitator (at the Reception/Departure Centre – OCHA)
6. 1 Exercise facilitator (at LEMA - Host Country)
7. 1 Exercise facilitator (at the OSOCC- OCHA)
8. 1 Exercise Facilitator (for USAR activities)
9. 1 Exercise Facilitator (for non USAR activities)
10. 6 to 10 role-players to represent affected population, national or international response organisations, media, Government and donor officials, etc
11. Observers from participating countries and organisations (national and international) may be requested to act as role-players as appropriate
12. Facilitators and coaches: Participants with extensive operational experience may be requested to assist the Exercise Control with providing injects in line with the exercise scenario and to provide guidance and clarification where needed in the following sectors:
    - 12.1 USAR
    - 12.2 water/sanitation
    - 12.3 shelter
    - 12.4 logistics/transport/environment
    - 12.5 health
    - 12.6 socio-political

9. Logistics

1. Office space for exercise organisers
2. Lecture room with electronic presentation facilities for plenary sessions, internet connectivity is desired
3. Three Break-out rooms on the evening of day 2 for exercise preparation. One of these rooms requires internet connectivity

4. Office space for airport authorities
5. Office space at the airport to establish Reception Centre
6. Office space for LEMA operations room (ideally the LEMA emergency operations centre)
7. Office space (room or tent) with internet connectivity and electricity to establish the OSOCC
8. Five rooms (or sheltered areas) for the simulation of assessment and field operations

10. IT and Communications

1. Two separate telephone lines each between EXCON-OSOCC and EXCON-LEMA to facilitate OCHA/Government interaction and communication with other counterparts for participants. Mobile phones may also be used to represent national or international response actors.

11. Accommodation

1. Participants and exercise organisers

12. Transport

1. Transportation requirements are as follows:

   1.1 Shuttle service between the hotel, venue and airport

   1.2 The need for vehicles and drivers depends on the size of the exercise area and has to be determined in the planning conference.

Sample Schedule for USAR Exercise

Day 1	Topic	Format
09h00- 16h00	EXCON preparatory meeting ▪ Final coordination of training module and exercise ▪ Assignment of EXCON tasks ▪ Assignment of resources ▪ Finalisation of Admin arrangements	Meeting between host country & INSARAG Secretariat (OCHA)
12h30- 14h00	Lunch	
	Arrival of participants	
16h00- 17h00	Participant Registration	
17h00- 18h00	Exercise Introduction ▪ Schedule ▪ Objectives ▪ Conduct	
18h00- 18h30	Participant Introduction ▪ Understand participating organisations and what role they play in disaster response	
19h00	Welcome Reception ▪ Icebreaker	

Day 2	Topic	Format
09h00–09h30	Opening address and welcome	
09h30–10h30	Host country risk profile and disaster management plan	Presentation
10h30-11h00	Break	
11h00-11h30	▪ Challenges in international USAR response ▪ INSARAG Overview ○ GA Resolution 57/150 ○ Mandate & Structure ○ Guidelines & USAR Classification	
11h30-12h00	INSARAG coordination tools overview ▪ Virtual OSOCC ▪ UNDAC ▪ LEMA ▪ Reception/Departure Centre ▪ OSOCC ▪ IHP Support Modules	Presentation
12h00-13h00	Responsibilities: ▪ Member Countries ▪ Office for the Coordination of Humanitarian Affairs (OCHA) ▪ International USAR teams	Presentation
13h00-14h00	Lunch	

Day 2	Topic	Format
	Preparedness and Mobilisation	
14h00-14h30	Alert and Response Mechanisms	Presentation and workshop
14h30-16h00	Reception/Departure Centre	Presentation and workshop
16h00-16h30	Break	
16h30-17h00	Feedback	
17h00	Close	
Day 3	**Session**	**Format**
	Operations Phase	
09h00-10h30	OSOCC	Presentation and workshop
10h30-11h00	Break	
11h00-12h30	Operations planning	Presentation and workshop
12h30-13h30	Lunch	
13h30-14h00	Feedback	
14h00-15h30	Marking System	Demonstration and workshop
15h30-16h00	Break	
16h00-17h00	Course evaluation	
17h00-19h00	Dinner	

Day 3	Topic	Format
19h00-19h45	Introduction to the exercise objectives and the way the inject-driven USAR exercise will be conducted	Plenary Session
19h45-20h00	Introduction of the composition of EXCON and their individual roles and responsibilities	Plenary Session
20h00-24h00 (end time dependent on participant progress)	▪ Handout of exercise scenario ▪ Group work ○ Negotiation between UNDAC team and airport for the setup of the RDC ○ Negotiation between UNDAC and LEMA for the setup of the OSOCC ○ International USAR teams preparation for deployment ○ National USAR teams determine the impact of the disaster in their respective locations under supervision of national disaster management authorities	Exercise

Day 4	Topic	Format
06h00-08h00	Arrival of USAR Teams ▪ Practice Reception Centre formalities and information exchange between Reception Centre, Airport Authorities, OSOCC and LEMA ▪ National response teams provide first briefing to LEMA about the impact of the disaster in their respective locations	Exercise
07h00-12h00	Arrival of USAR Teams at OSOCC ▪ Briefing by OSOCC/LEM ▪ Joint Assessment planning USAR/OSOCC/LEMA ▪ Joint assessment planning based on initially available information	Exercise
Day 4	**Topic**	**Format**
13h00-15h00	Demonstration of the full cycle (assessment, search, rescue, medical) USAR operation of a heavy USAR team	Demonstration
09h00-20h00	Assessment of humanitarian needs ▪ Sectoral relief coordination of national and international humanitarian actors by OSOCC/LEMA ▪ Identification of priority needs ▪ Development of relief operations plan by OSOCC/LEMA (who does what and where, priorities, bottlenecks)	Exercise
12h00-20h00	Evaluation of additional assessment reports, and current USAR results	Exercise
20h00-	Exercise Debriefing of Phase II	Plenary Session

21h00	▪ Feedback to trainees by EXCON to reinforce what went well and indicate what can be improved ▪ Feedback by trainees to EXCON about exercise conduct to flag ambiguity and clarify misunderstandings and make recommendations to improve the exercise flow	
Day 5	**Topic**	**Format**
06h00-09h00	▪ Conduct USAR operational meeting to agree on re-assignment of USAR teams ▪ Determine humanitarian relief needs and available/channelled resources and identify assignment of available resources and the need for additional priority relief items and resources	Exercise
Day 5	**Topic**	**Format**
09h00-12h00	▪ OSOCC/LEMA to develop Exit Strategy for the UNDAC team identify road-map for transition from relief to rehabilitation ▪ USAR teams to prepare for departure ▪ Activation of UN Departure Centre at the airport ▪ Departure of international USAR teams	Exercise
12h00	END EXERCISE	
12h00-14h00	Lunch	
14h00-15h00	Preparation of Lessons Learned ▪ Determine key issues of what went well and what could be improved regarding participant performance and EXCON	Group Work

	conduct of the exercise	
15h00-16h00	Exercise debriefing and lessons learned ▪ Highlight and discuss key issues of things that went well and things that should be improved to be compiled in a final exercise evaluation report	Plenary Session
18h00	Closing Dinner and Social Event	

INCIDENT INFORMATION

USAR Team: _____ **Date/Time:**_____

Current Situation reported from LEMA:

_____
_____
_____
_____

Accomplishments of Last Operations Period:

Work Site Location: _____
Number of live rescues accomplished: _____
Number of deceased recovered: _____
Number of Buildings Assesses:
Totally Collapsed _____ Partially_____ Undamaged_____

Assignments for Next Operations Period:

Search assignment _____
Rescue assignment _____
Medical assignment _____
Engineer assignment _____
_____
_____
_____
_____

USAR Team Needs:

Personnel (translators, drivers, guides) – _____
Vehicles (car, truck) – _____
Food - _____
Water - _____
Lumber for shoring (dimension and quantity)_____
Fuel (petroleum…) for generators_____
Fuel (petroleum…) for vehicles –
_____
Heavy equipment (crane, bulldozer…) - _____

Affected Population Needs:____Number of affected population in assigned area:_____

Food - yes or no
Water - yes or no
Shelter - yes or no
Sanitation - yes or no
Medical – yes or no
others: _____
_____

Location of BoO (Street and GPS): _____

Communications means:

Satellite telephone number: _____
Cellular telephone number: _____
Radio frequency: _____

ANNEX D: USAR TEAM DEMOBILISATION FORM

USAR Demobilisation sheet to be completed and submitted to the OSOCC to facilitate transportation from the affected country.

DEMOBILISATION INFORMATION:

Team Name: _____

Preferred Date of Departure: _____

Preferred Time of Departure: _____

Preferred Point of Departure: _____

Flight information: _____

TEAM INFORMATION:

Number of persons: _____

Number of dogs: _____

Equipment (TM^3): _____

SPECIAL REQUESTS:

Need of ground transportation: □ Yes / □ No

Need of loading/unloading assistance: □ Yes / □ No

Need for accommodation at point of departure: □ Yes / □ No

OTHER NEEDS:

_____

_____

_____

_____

_____

ANNEX E: USAR TEAM POST MISSION REPORT

1. A Post Mission Report is recommended to be completed and submitted to the INSARAG Secretariat within 45 days following every national or foreign USAR deployment. If possible, include a photographic record of the mission with the report submission.

2. Below is an outline of the contents this report should address.
   - 2.1 Team Name
   - 2.2 Mission
   - 2.3 Overview
   - 2.4 Preparation
   - 2.5 Mobilisation
   - 2.6 Operations:
     - 2.6.1 Coordination with LEMA
     - 2.6.2 Coordination with OSOCC
     - 2.6.3 Cooperation with other teams
     - 2.6.4 Base of Operations
     - 2.6.5 Team Management
     - 2.6.6 Logistics
     - 2.6.7 Search
     - 2.6.8 Rescue
     - 2.6.9 Medical
   - 2.7 Demobilisation
   - 2.8 Lessons Learned
   - 2.9 Recommendations
   - 2.10 Provider of information
   - 2.11 Contact Details

ANNEX F: USAR TEAM FACT SHEET

USAR Fact sheet to be completed and submitted at the Reception Centre and OSOCC

TEAM NAME:_____

COMPOSITION:

(Complete/tick information in spaces provided)

____ - person ____ - dogs

USAR team: INSARAG Classification - □ Light/ □ Medium/ □ Heavy

Multi-disciplinary organisation:-

□ Search element □ Rescue element □ Command element

□ Medical element □ Technical support element

Self-sufficient: □ Yes / □ No

Deployment for 10 days of operation: □ Yes / □ No

Full equipment stock to support the team's operations. □ Yes / □ No

SUPPORT REQUIREMENTS:

(Complete information in spaces provided)

Transportation/Logistics:-

Transport for _____ personnel and dogs

Transport for _____ tons of equipment

Access to medical oxygen_____ cylinders, oxygen/acetylene _____ cylinders, petrol: (gasoline) _____ litres and (diesel) _____ litres

Access to appropriate area maps, building plans or other information.

If available, receive copies of past/current/future OSOCC planning documents.

Area of operations assignment.

CONTACT:

Team Focal Point (Team Leader / Liaison):_____

Mobile Phone: _____

Sat Phone: _____

Radio Frequency: _____

ANNEX G: MISSION SUMMARY REPORT

To be completed by all USAR Teams prior to leaving the affected country. Completed forms are to be submitted to either the OSOCC or the Reception/Departure Centre.

Team Name:_____

Contact Information (in home country):

Name:_____ Phone: _____

E-mail: _____ Fax: _____

Date and time of arrival: _____

Date and time of departure: _____

Assigned Area(s) of Operation:

_____

_____

Results:

DESCRIPTION	NUMBER
Live victims extricated	
Dead victims recovered	

Suggested changes to current INSARAG Guidelines:

_____

_____

_____

_____

_____

_____

_____

_____

_____

ANNEX H: INSARAG CLASSIFICATION CHECKLIST

USAR Team Preparedness	Heavy	Medium	Light
Establish procedures to:			
1. Select and appoint national and operational focal points	✓	✓	✓
2. Implement a system to continuously collect and analyse disaster information	✓	✓	✓
3. Exchange disaster related information with authorities in your country	✓	✓	✓
4. Information exchange with the international community via the Virtual OSOCC	✓	✓	✓
5. Recommend deployment to USAR Team sponsor	✓	✓	✓
6. Ensure departure within 10 hours after the request for assistance	✓	✓	✓
7. Complete and submit USAR Team Fact Sheet	✓	✓	✓
8. Be operational in affected country within:	48 hrs	32 hrs	N/A
9. Ensure self-sufficiency for the duration of your deployment	✓	✓	✓
10. Operate within the affected country for:	10 days	7 days	3 days
11. Prepare and follow a detailed plan of action for all operational phases	✓	✓	✓
12. Post regular reports and updates onto the Virtual OSOCC	✓	✓	✓
13. Ensure adequate number of trained team members to work continuously:	24 hrs/10 days	24 hrs/7 days	12hrs/ 3 days
14. Ensure training of personnel according to the INSARAG Guidelines	✓	✓	✓
15. Initialise provisional Reception/Departure Centre and OSOCC activities including the supply of necessary equipment	✓	✓	Not expected
16. Ensure documentation is current for: 16.1 Inoculations/vaccinations recommended by national health authorities for international travel 16.2 Medical clearance for international travel 16.3 Travel documentation (passports with a minimum of 6 months validity) 16.4 Search dogs veterinary clearance/chips 16.5 Manifest lists (passengers and equipment)	✓	✓	✓

USAR Team Preparedness	Heavy	Medium	Light
Ensure a pre-packed dedicated equipment cache is available, therefore not depleting national resilience	✓	✓	✓
2. Develop a Transportation Plan (air or ground; to and within affected country)	✓	✓	Not expected
3. Team must have the ability to communicate: Internally (within the team) Externally (outside the team within the affected country) Internationally (home country)	✓	✓	✓
4. Internet connectivity while deployed	✓	✓	Not expected
5. Ensure access to and use of GPS	✓	✓	✓
Required Capabilities			
1. Team Leader	✓	✓	✓
2. Structural engineer(s)	✓	✓	Not expected
3. HAZMAT detection capability	✓	✓	Not expected
4. Personnel within the team are assigned responsibility of Safety and Security	✓	✓	✓
5. Reception/Departure Centre, OSOCC and LEMA Coordination	✓	✓	✓
6. Logistics	✓	✓	✓
7. Communications	✓	✓	✓
8. Search dogs	✓	Either or both	Not expected
9. Technical search	✓		
10. Rescue	✓	✓	✓
11. Heavy lifting	✓	✓	Not expected
12. Medical Care	✓	✓	✓

USAR Operations	Heavy	Medium	Light
1. Provide daily assessment and search results report to OSOCC/LEMA	✓	✓	✓
2. Utilise all INSARAG documentation	✓	✓	✓
3. Conduct area reconnaissance	✓	✓	✓
4. Conduct structural assessment	✓	✓	✓
5. Conduct hazard/risk assessment (electricity, security, secondary threats, etc.)	✓	✓	✓
6. HAZMAT detection	✓	✓	Not expected
7. HAZMAT isolation	✓	✓	Not expected
8. Conduct operations on multiple sites simultaneously	✓	Not expected	Not expected
9. Conduct operations in confined spaces and voids	✓	✓	Not expected
10. Utilise the INSARAG Marking and Signalling System	✓	✓	✓
11. Conduct search dogs' search (detection-phase)	✓	Either or both	Not expected
12. Conduct technical search using optical/acoustic/thermal devices (location-phase)	✓		
13. Conduct rescue operations (extrication-phase)	✓	✓	✓
14. Breaking and Breaching:			
14.1 Penetrate overhead to a void space	✓	✓	Not expected
14.2 Penetrate below to a void space	✓	✓	Not expected
14.3 Penetrate laterally through a load bearing wall to a void space	✓	✓	Not expected

USAR Operations	Heavy	Medium	Light
15. Cutting:			
15.1 Concrete	✓	✓	Not expected
15.2 Structural steel	✓	Not expected	Not expected
15.3 Reinforcing bar	✓	Not expected	Not expected
15.4 Timber	✓	✓	✓
16. Lifting and Moving:			
16.1 Lifting equipment must have a combined lifting capacity of:	245 MT kit	50 MT kit	Not expected
16.2 Lifting equipment to move loads:	2.5 MT	1 MT	Not expected
16.3 Equipment (shackles, slings, etc) and expertise to support lifting the following loads utilising local heavy equipment (e.g. cranes):	20 MT	12 MT	Not expected
17. Shoring- Stabilise and support structural components with the use of:			
17.1 Cribbing and wedges	✓	✓	✓
17.2 Vertical, and window/door shores	✓	✓	Not expected
17.3 Raker and lace post shores	✓	Not expected	Not expected
18. Technical Rope:			
18.1 Construct and utilise a vertical raising and lowering system	✓	✓	✓
18.2 Construct and utilise a traversing system	✓	✓	✓
19. Medical Care:			
19.1 Team and search dogs	ALS	ALS	BLS
19.2 Patient care from victim access to victim hand-over	ALS	ALS	BLS

USAR Operations	Heavy	Medium	Light
20. BoO: 20.1 Water storage/filtration 20.2 Food 20.3 Shelter for personnel and equipment 20.4 Sanitation 20.5 Security 20.6 Maintenance	✓	✓	✓
USAR Demobilisation	**Heavy**	**Medium**	**Light**
1. Demobilisation must be done in consultation with OSOCC/LEMA	✓	✓	✓
USAR Post Mission	**Heavy**	**Medium**	**Light**
1. Submission of post-mission report to the INSARAG Secretariat within 45 days	✓	✓	✓

ANNEX I: INSARAG EXTERNAL CLASSIFICATION

1. Introduction

1. The UN GA Resolution 57/150 of 16 December 2002 on "Strengthening the Effectiveness and Coordination of International USAR Assistance, endorses the International Search and Rescue Advisory Group (INSARAG) Guidelines as the reference for international USAR and disaster response. The INSARAG Guidelines have been prepared by USAR responders around the world to guide international USAR teams and disaster prone countries to perform disaster response operations during major disasters. The INSARAG Secretariat under the Field Coordination Support Section (FCSS) of the Office for the Coordination of Humanitarian Affairs (OCHA) has commenced conducting the INSARAG External Classification (IEC) of international USAR teams when requested by the national INSARAG focal points.

2. Purpose

1. Experience gained from international USAR operations has revealed the need for responding USAR teams to be coordinated and integrated within a system that best serves the affected country in its time of need. To date, USAR teams have referred to the INSARAG Guidelines to determine the requirements in order to function as a Light, Medium or Heavy USAR team. Previously existing classification listings in the USAR Directory have been self determined.

2. The IEC, referencing the INSARAG Guidelines, serves as an independent body whose purpose is to perform an objective peer review of an international USAR team's capacity.

3. IEC Process

1. The INSARAG Guidelines defines USAR teams as being sponsored by either a country or non-government organization (NGO) or a combination thereof, which have the endorsement of the governments INSARAG focal point.

2. Urban Search and Rescue (USAR) team(s) who intend to deploy to international large-scale structural collapse incidents are expected to obtain classification as a Light, Medium or Heavy team in accordance with the agreed INSARAG classification criteria.

3. Regardless of sponsorship, any USAR team requesting an IEC must have the endorsement of its Government and submit an application package to the INSARAG Secretariat. Upon approval of the INSARAG Secretariat an IEC team will be appointed to review and assess the capacity of the applicant.

4. USAR teams applying for the IEC process are required to comply with the following:
   - 4.1 Submit evidence of INSARAG membership
   - 4.2 Submit a Letter of Application requesting to be evaluated, addressed to the INSARAG Secretariat
   - 4.3 Submit a Letter of Endorsement from the Government of the home country
   - 4.4 Submit a Portfolio of Evidence comprising of:
     - 4.4.1 Evidence of National and Operational Focal Points
     - 4.4.2 Evidence of International Mobilisation Plan
     - 4.4.3 Evidence of Home Country Support Plan while on deployment
     - 4.4.4 Evidence of use of the Virtual OSOCC
     - 4.4.5 Evidence of use of INSARAG documentation
     - 4.4.6 National Focal Point notification of USAR Team procedure
     - 4.4.7 USAR Team activation procedure
     - 4.4.8 Evidence of Transport arrangements

4.4.9 Memorandum of Understanding between Government and USAR Team for deployment for international humanitarian assistance

4.4.10 Memorandum of Understanding between USAR Team and services/ organisations supplying personnel and or equipment

4.4.11 SAR Team Structure

4.4.12 SAR Team annual training program

4.4.13 SAR Team personal health and travel policy

4.4.14 Evidence of Medical Evacuation Policy

4.4.15 Pet Passports

4.4.16 Search Dog Basic Standards and Assessment Procedures

4.4.17 Base of Operations Inventory

4.4.18 Equipment Inventory

4.4.19 Evidence of Post Mission Reporting

4.4.20 Personnel Training Records

4.4.21 For combined teams, evidence of affiliation to the country or NGO team

4.5 Conduct an exercise demonstrating operational capacity over a minimum of 36 hours

4. IEC Team

1. An IEC Team is comprised of representatives from the INSARAG Secretariat and peers selected by the Secretariat from other INSARAG USAR teams. The team will generally consist of between 4 – 6 members who will provide the required expertise to evaluate the various components of a USAR team. In certain instances, one team member may provide expertise in more than one function (Diagram 1).

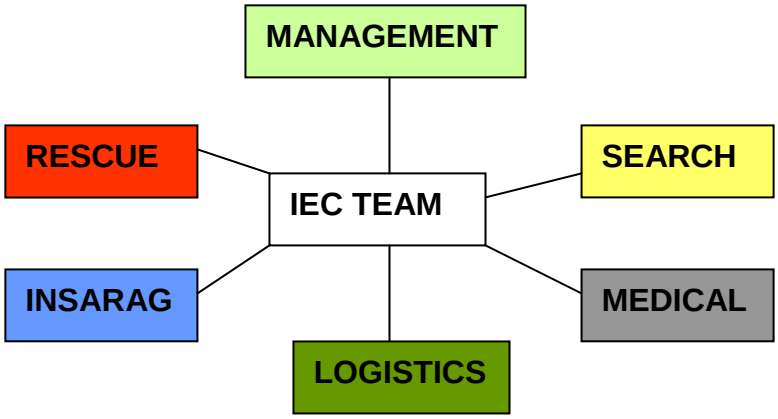


Diagram 1

5. Classification

1. The classification awarded is only applicable to the team being evaluated. If the USAR team is composed of several different organisations (government services, NGO's) who respond together as a combined team, then the classification awarded is applicable to that combination of organisations only (Chart1). If one of those organisations has the capacity, and intends to respond to international incidents independently, they would require a separate classification for their team as a stand-alone independent entity (Chart 2).

Chart 1

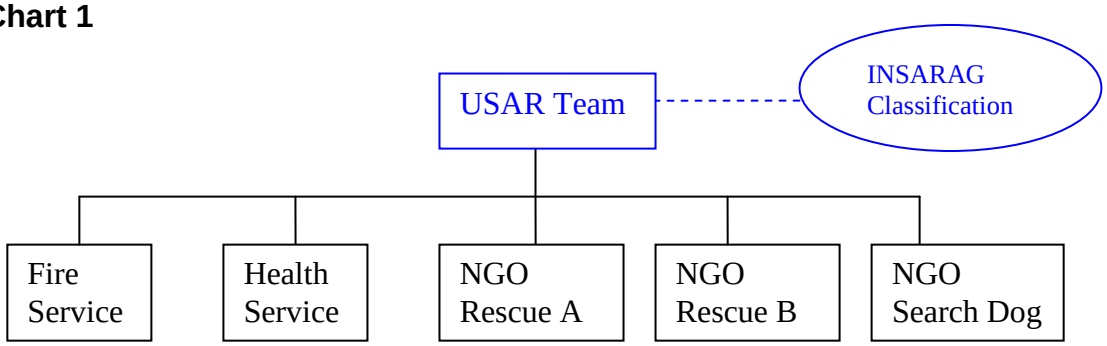
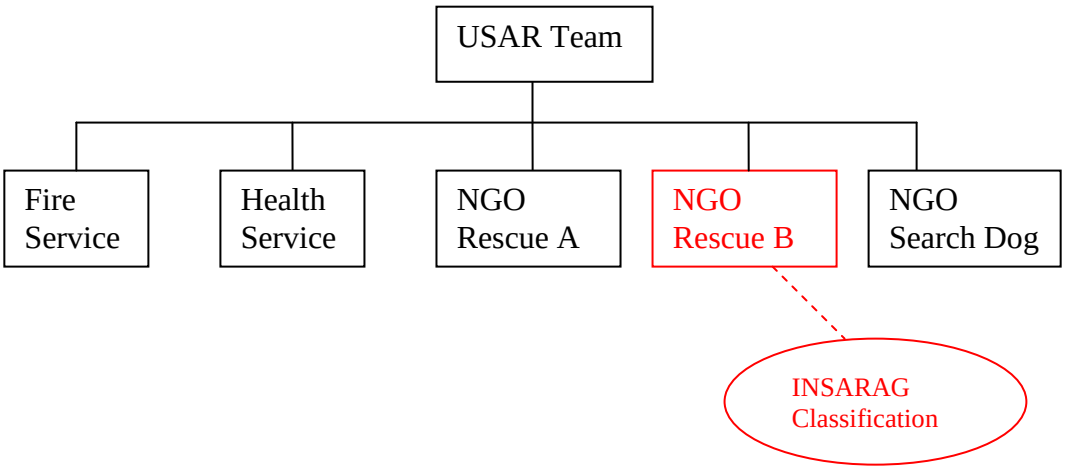


Chart 2



2. A team who has undergone the IEC process and has been awarded a classification will automatically be classified to respond at a capacity below the level at which they have been classified i.e. if a team has been classified as a Heavy Team, they will automatically be classified as a Medium Team.

6. Classification Exercise Planning

1. Once the application has been approved by the INSARAG Secretariat, a representative of the IEC team will be appointed. This representative should be consulted during the early planning phase of the classification exercise by the requesting country or organisation in order to ensure the exercise is constructed in a manner that gives the IEC team the opportunity to assess all the required components in accordance with the INSARAG Guidelines. The exercise planning committee for the USAR team undergoing the classification is required to appoint a liaison person to communicate with the representative of IEC team during the planning phase and who will then be assigned to the IEC team for the duration of the classification exercise.

7. Pre-Exercise Briefing

1. A representative of the IEC team should be present during the Participants Briefing to ensure all participants are aware of what the IEC entails and what will be required from them during the classification process.

2. If the host team undergoing the external classification has invited observers to attend the classification exercise, these observers should attend a separate Observers Briefing. During this briefing, observers should be informed about the IEC process and be made aware that the IEC team is independent of the Observer delegation; because of this, little interaction is expected amongst the two groups.

8. Methodology

1. The IEC team will assess two distinct but integrated components of international USAR operations:

2. The IEC team representative will be responsible for communicating with other members of the IEC team once they have been appointed by the INSARAG Secretariat.

8.1 Response Capability

1. The Response Capability assessment will ascertain the USAR team's capability to receive notification of a breaking emergency, respond internationally in a timely fashion and the team's capacity to assist the Local Emergency Management Authority (LEMA) to receive international assistance by establishing a RDC.

2. Teams are also required to assist the UNDAC team in establishing an OSOCC, particularly if it arrives ahead of the UNDAC Team, to coordinate rescue efforts with LEMA and other national and international USAR teams,

and establish a self sustained Base of Operations (BoO) for the duration of the exercise.

8.2 Technical Capability

1. The IEC team will assess the USAR team's capability to perform urban search and rescue operations according to the classification which the team is wishing to achieve, referencing the INSARAG Checklist. The technical scenarios are to be designed in a manner that will challenge the USAR team's ability to operate effectively in real-life mission situations and timelines. Teams will be required to perform ongoing search and rescue operations and render medical care during simulated structural collapse in a continuous scenario utilising the full range of skills and equipment commensurate with desired capacity classification.

9. Classification Process

1. The IEC assessment process will include consideration of the following aspects of an international USAR team's functioning:
   - 1.1 National Focal Point
   - 1.2 Receiving and taking action on the Alert Notification
   - 1.3 USAR Team selection and activation
   - 1.4 USAR Team personnel preparedness and mustering (including mobilisation point)
   - 1.5 USAR Team organogram
   - 1.6 Equipment cache, packaging and transport to airport
   - 1.7 Review of load plans and inspection of equipment as it would be loaded onto the aircraft
   - 1.8 Review of Safety and Security, Health and Safety and Emergency Evacuation plans
   - 1.9 Upon arrival, negotiation with airport authorities and selection of an appropriate site for the establishment of a Reception/Departure Centre (These matters may be carried out in conjunction with UNDAC)
     - 1.9.1 Assessment of use of the Virtual OSOCC

1.9.2 Assessment of communications with the OSOCC and other international actors

1.9.3 Assessment of Information Management techniques

1.10 Travel to the "disaster" site

1.11 Upon arrival, conduct initial meeting with LEMA representatives

1.12 Establish an OSOCC

1.12.1 Assessment of use of the Virtual OSOCC

1.12.2 Assessment of communications with Reception/Departure Centre

1.12.3 Assessment of Information Management techniques

1.12.4 Assessment of coordination with LEMA and other international actors

1.13 Communications evaluation within the team, between the team and the OSOCC and internationally, including posting of updates of the Virtual OSOCC

1.14 In coordination with LEMA, select an appropriate site and establish a BoO

1.14.1 Assessment of Security Plan

1.14.2 Assessment of Health and Hygiene Plan

1.14.3 Assessment of catering capability

1.14.4 Assessment of sanitation (Waste management)

1.15 Conduct a rapid field assessment and prioritise work site locations

1.16 Appropriate use of the INSARAG Marking system

1.17 Conduct dog and / or technical search operations (depending on classification being evaluated)

1.18 Conduct rescue operations assessing a team's ability to cut and breach building material including concrete with or without reinforcing (depending on classification being evaluated)

1.19 Provide medical care to the team, dogs and victims

1.20 Work multiple sites simultaneously (depending on classification being evaluated)

1.21 Detect and mitigate the effects of hazardous materials (depending on classification being evaluated)

1.22 Team reconfiguration: Demonstrate how the team would scale down to deploy at a lower level of classification i.e. from Heavy to Medium

2. All of the above will be assessed as part of an ongoing scenario and not in isolation as the classification process aims to assess a USAR team's capability to function in a coordinated and cooperative manner with all stakeholders (LEMA, other USAR teams, UNDAC and other international actors) in the affected country.

10. Conclusion

1. Following the classification, the responsible authority for the USAR Team will be issued with a certificate stating the date the team was externally classified and the capacity (Light; Medium; Heavy) achieved, which will then be entered into the USAR Directory.

2. Teams will receive a detailed report on the IEC findings which will be sent to the sponsoring authority.

ANNEX J: PHONETIC ALPHABET

A	Alpha
B	Bravo
C	Charlie
D	Delta
E	Echo
F	Foxtrot
G	Golf
H	Hotel
I	India
J	Juliet
K	Kilo
L	Lima
M	Mike
N	November
O	Oscar
P	Papa
Q	Quebec
R	Romeo
S	Sierra
T	Tango
U	Uniform
V	Victor
W	Whiskey
X	X-ray
Y	Yankee
Z	Zulu

ANNEX K: MEDIA MANAGEMENT SUGGESTIONS

1. Interviewing "Do's"

1.1 Ask the reporter's name. Then use it in your response

1.2 Use your full name. Nicknames are not appropriate

1.3 Choose the site (if possible). Make sure you are comfortable with the location of the interview. Consider what is in the background

1.4 Choose the time (if possible). If you would be more comfortable waiting another five minutes, ask the reporter if it's okay. However, you should bear in mind that reporter has deadline for report

1.5 Be calm. Your demeanour and apparent control of the situation are very important in establishing the tempo of evolving events

1.6 Tell the truth

1.7 Be cooperative. You have accountability to explain to the public. There is an answer to most questions, and if you don't know it now, let them know you will work diligently to determine the facts needed

1.8 Be professional. Don't let your personal feelings about the media, or this reporter in general, affect your response

1.9 Be patient. Expect dumb questions. Do not get angry to those ill-natured or ill-tempered questions. If the same question is asked again, repeat your answer without irritation

1.10 Take your time. If you make a mistake during a taped or non-broadcast interview, indicate that you would like to start over with your response. If appearing live, just start over again

1.11 Use wrap-around sentences. This means repeating the question with your answer for a complete 'sound bite'

2. Interviewing "Don'ts"

2.1 Do not discriminate against any type of press or any specific press agency. You should be open to all media such as TV or radio, nationwide or local paper and foreign or national press

2.2 Do not reply with 'no comment'

2.3 Do not give your personal opinion. Stick to the facts

2.4 Do not go off the record. Anything you say can and will be used against you

2.5 Do not lie. To tell a lie unintentionally is a mistake. To intentionally tell a lie is

stupid

2.6 Do not bluff. The truth will come out

2.7 Do not be defensive. The media and their audience recognise a defensive attitude and tend to believe you are hiding something

2.8 Do not be afraid. Fear is debilitating and is not a characteristic you want to portray

2.9 Do not be evasive. Be upfront on what you know about the situation and what you plan to do to mitigate the disaster

2.10 Do not use jargon. The public is not familiar with much of the language used in this field

2.11 Do not confront. This is not the time to tell a reporter how much you dislike the media

2.12 Do not try to talk and command a disaster at the same time. You won't do either well

2.13 Do not wear sunglasses

2.14 Do not smoke

2.15 Do not promise results or speculate

2.16 Do not respond to rumours

2.17 Do not repeat leading questions

ANNEX L: SUGGESTED USAR TEAM EQUIPMENT LIST

1. USAR Light Operational Level

1.1 2 – 8 to 10 lb. (3.5 kg to 4.5 kg) Sledge Hammers

1.2 2 – 3to 4 lb. (1.4 kg to 1.8 kg) Sledge Hammers

1.3 2 – Cold Chisels (I-inch x 77/s-inch [25 mm x 197 mm])

1.4 4 – Pinch Point Pry Bars (60-inch [1 500 mm])

1.5 2 – Claw Wrecking Bars (3 foot [1 m])

1.6 2 – Hacksaws (Heavy Duty)

1.7 3 – Carbide Hacksaw Blade Packages

1.8 2 – Crosscut Handsaws (26-inch [650 mm])

1.9 1 – Cribbing & Wedge Kit **

1.10 1 – First Aid Kit **

1.11 1 – Trauma Kit **

1.12 2 – Blankets (Disposable)

1.13 1 – Backboard with 2 Straps

1.14 1 – Bolt Cutter (30-inch)

1.15 1 – Scoop Shovel "D" Handle

1.16 1 – Building Marking Kit **

1.17 1 –Axe (Flat Head)

1.18 1 – Axe (Pick Head)

1.19 2 – 150-foot x l/2-inch (45 m x 13 mm) static, kernmantle rope

1.20 2 – Friction Devices **

1.21 12 – Carabiners (Locking "D," II mm)

1.22 6 – Camming Devices **

1.23 3 – Rescue Pulleys (2- or 4-inch [50 mm or 100 mm])

1.24 1 – Litter & Complete Pre-Rig **

1.25 1 – Webbing Kit **

1.26 2 – Edge Protection Devices **

1.27 2 – Pick Off Straps **

1.28 2 – Rope rescue harnesses (professionally manufactured)

1.29 6 – Steel Pickets (I-inch x 4-foot [25 mm x 1.3 m])

1.30 2 – 1.4 kg to 1.8 kg Short Sledge Hammers

1.31 1 – Chain Saw **

1.32 3 – Tape Measures (8 m)

1.33 1 – Shovel, Long Handle, Square Point

1.34 1 – Shovel, Long Handle, Round Point

1.35 2 – Framing Hammers (0.7 kg)

1.36 2 – Tri or Speed Squares

1.37 2 – Carpenter Belts

1.38 I – Nails **

1.39 2 – Hydraulic Jacks (Minimum 5-ton)

1.40 2 – Rolls Duct Tape

*** – Refer to the Tool Information Sheet for details*

2. USAR Medium Operational Level

In addition to the USAR Light Operational Equipment List, the following is recommended:

2.1 1 – Air Bag Set (3 Bags, 50-ton, w/3 Spare Air Cylinders)

2.2 1 – Bolt Cutters (Heavy Duty, 50 mm)

2.3 1 – Generator (5 KW)

2.4 4 – Floodlights (500 W)

2.5 6 – Extension Cords (50-foot)

2.6 1 – Junction Box (4 Outlets w/GFI)

2.7 1 – Wye Electrical Adapter

2.8 1 – Rotary rescue saw (300 mm)

2.9 2 – Rotary rescue saw Blades [300 mm] Carbine Tip)

2.10 12 – Rotary rescue saw Blades [300 mm] Metal Cutting)

2.11 2 – Rotary rescue saw Blades [300 mm] Diamond, Continuous Rim)

2.12 1 – Pressurized Water Spray Can

2.13 1 – Rotary Hammer (38 mm)

2.14 1 – Rotary Hammer Bit Kit **

2.15 1 – Anchor Kit **

2.16 1 – Saw, Electric w/12 blades, metal cutting & 2 carbide tip. (101/4-inch [256 mm])

2.17 1 – Reciprocating saw w/12 wood blades and 18 metal blades

2.18 2 – Ropes (90 m x 13 mm) static, kernmantle

2.19 2 – Ropes (6 m x 13 mm) static, kernmantle

2.20 3 – Rescue Pulleys (50 mm or 100 mm)

2.21 2 – Friction Devices **

2.22 12 – Carabiners (Locking “D” 11 mm)

2.23 1 – Webbing Kit **

2.24 1 – Etrier Set

2.25 2 – Rope rescue harnesses (professionally manufactured)

2.26 2 – Shovels, Folding, Short

2.27 4 – Haul Buckets (Metal or Canvas)

2.28 8 – 100 mm x 100 mm x 2.5 m Lumber

2.29 6 –Screw Jacks, Pairs (38mm)

2.30 1 – Pipe cutter, multi-wheel (38-mm)

2.31 6 – Pipe (2 m x 38 mm*)*

2.32 2 – Hi-lift jacks w/extension tube

2.33 1 – Cribbing and wedge kit **

2.34 1 – Come-along (2- to 4-ton)

2.35 1 – Chain set **

2.36 1 – Tool kit **

2.37 1 – Demolition hammer, small **

2.38 1 – Demolition hammer, large **

2.39 1 – Electrical detection device **

2.40 1 – Ventilation fan **

2.41 1 – Air Monitoring device

** – *Refer to the Tool Information Sheet for details*

3. USAR Heavy Operational Level

In addition to the USAR Light and Medium Operational Equipment Lists, the following is recommended:

3.1 6 – Self-Contained Breathing Apparatus (SCBA) , each with a Personal Alert Device and one spare cylinder

3.2 3 – Supplied Air Breathing Apparatus (SABA) Umbilical System w/escape cylinder & 75 m of hose each

3.3 1 – Air monitoring device

3.4 1 – Tri-Pod (human rated, 2.3 m to 3 m w / hauling system)

3.5 2 – Full-body rope rescue harnesses

3.6 1 – Ventilation Fan **

3.7 1 – Rotary rescue saw 400 mm w/10L fuel can

3.8 2 – Rotary rescue saw blades (400 mm diamond, continuous rim)

3.9 2 –Rotary rescue saw Blades (400 mm carbide tip)

3.10 1 – Pressurized water spray can

3.11 6 – Canister Type Respirators

3.12 24 – Replacement canisters for respirators

3.13 1 – Generator (5 KW)

3.14 4 – Floodlights (500 W)

3.15 6 – Extension cords (15 m)

3.16 1 – Junction box (4 Outlets w/GFI)

3.17 1 – Wye electrical adapter

3.18 1 – Rotary hammer (38 mm)

3.19 1 – Rotary hammer bit kit **

3.20 1 – Reciprocating saw w/12 Wood Blades and 18 metal blades

3.21 1 – Drill (38 mm], Variable Speed)

3.22 1 – Drill bit set (steel, 3 mm to 15 mm

3.23 1 – Drill bit set (carbide tip 6 mm to15 mm)

3.24 1 – Chainsaw (300 mm) electric w/spare carbide tip chain, if not already present from light inventory

3.25 1 – Rebar cutter (25 mm Capacity)

3.26 1 – Cutting torch **

3.27 1 – Come-along (2- to 4-ton)

3.28 1 – Demolition hammer, small **

3.29 1 – Demolition hammer, large **

3.30 1 – Extrication stretcher for confined areas

3.31 2 – Shovels, folding, short

3.32 1 –Upgrade capacity of high pressure air bags to a total of 245 tons

3.33 2 – Airbag regulators

3.34 2 – Building marking kits **

3.35 1 – Cribbing and wedge kit **

3.36 1 – Ram set powder actuated nail gun (w/150 red charges)

3.37 1 – Box ram set nails w/washers (65 mm)

3.38 1 – Box ram set nails w/washers (90 mm)

3.39 1 – Green stone wheel (to sharpen carbide tips on tools)

3.40 1 – Nails **

3.41 2 – Tri or speed squares

3.42 2 – Framing hammers (0.7 kg)

3.43 2 – Carpenter Belts

3.44 1 – Level (150 mm)

3.45 1 – Level (1.3 m)

3.46 1 – Nail gun, pneumatic (framing type, 6–16 Penny)

3.47 1 – Case nail gun nails (8-penny)

3.48 1 – Case nail gun nails (16-penny)

3.49 8 – Post Screw Jacks

3.50 12 – Screw jacks, pairs

3.51 12 – Pipe (2 m x 38 mm)

3.52 12 – Steel pickets (25 mm x 1.3 m)

3.53 1 – Case orange spray paint (line marking, downward application type)

3.54 1 – Case duct tape

3.55 1 – Technical search device **

*** – Refer to the Tool Information Sheet for details*

4. Usar Tool Information Sheet

1. Anchor Kit (anchors & plates are for rope system anchor points)
   - 1.1 1 box of 9 mm x 125 mm Concrete Anchors
   - 1.2 25 9 mm Stainless Steel Anchor Plates
   - 1.3 25 9 mm Drop Forged HID Eye Nuts
2. Building Marking Kit consisting of:
   - 2.1 2 Cans of orange spray paint, line marking (downward) application type
   - 2.2 4 Pieces of Lumber Chalk
   - 2.3 2 Lumber Crayons (Red)
   - 2.4 2 Lumber Crayons (Yellow)
   - 2.5 4 Lumber Pencils
3. Camming Device
   - 3.1 Prusik Loop (7 mm or 8 mm), Gibb' s Ascender, or a combination of each
4. Chain Saw
   - 4.1 Gasoline- or electric-powered, w/carbide tip chain & one spare chain and bar oil
   - 4.2 For gasoline-powered: 10 L can of spare fuel & oil mixture
   - 4.3 For electric-powered: need electric power source and 30 m of extension cord
5. Chain Set
   - 5.1 All Chain is o/s-inch [9 mm], Grade 7 or better
   - 5.2 1 – 3 m with a Grab Hook on Each End
   - 5.3 1 – 5 foot (1.6 m) with a grab hook & a slip hook
   - 5.4 1 – 3 m with a grab hook & a slip hook
   - 5.5 1 – 6 m with a grab hook & a slip hook
6. Cribbing & Wedge Kit
   - 6.1 24 beams – 10 cm x 10 cm x 45 cm
   - 6.2 24 beams – 50 mm x 10 cm x 45 cm
   - 6.3 12 wedges – 10 cm x 10 cm x 45 cm
   - 6.4 12 wedges – 5 cm x 10 cm x 30 cm

7. Cutting Torch

   7.1 One or more plasma cutter, exothermic, heavy duty oxygen-acetylene torch, or other similar device

8. Demolition Hammer, Electric, Pneumatic, or Gasoline, 40 kg Minimum

   8.1 2 bull-point bits

   8.2 2 chisel-point bits

9. Demolition Hammer, Electric, Pneumatic, or Gasoline, 20 kg Minimum

   9.1 2 bull-point bits

   9.2 2 chisel-point bits

10 Edge Protection

   10.1 Commercial edge rollers, canvas tarps, split fire hose, or any combination of each

11. Electrical Current Detection Device

   11.1 Volt/Ohm Meter, or other device to alert crew members of electrical current

12. First Aid Kit

   12.1 Basic first aid supplies for minor injuries to six victims or crew members, including band-aids, eyewash, 10 cm x 10 cm gauze pads, gauze dressings, triangular bandages, elastic bandages, etc.

13. Friction Device

   13.1 1 – Figure 8 with ears (or brake bar rack)

14. Litter & Complete Pre-Rig;

   14.1 Litter capable and rated for horizontal & vertical lift & hoist. Pre-rig can be commercial or pre assembled to include adjustment and attachment capability

15. Nails

   15.1 10 Kg of 16-Penny

   15.2 10 Kg of 8-Penny

   15.3 10 Kg of 16-Penny Duplex

16. Pick-Off Strap

   16.1 With webbing strap (with adjuster) consisting of one “D” ring and one “V” ring on either end

17. Rotary Hammer Bit Kit
    17.1 1 each carbide tip bits; (9,13, 19, 25, 38, and 50 mm)
18. Technical Search Device
    18.1 Optical instruments (search cameras)
    18.2 Seismic/acoustic instruments (listening devices)

5. Tool Kit

1. 1 – 30 cm crescent wrench
2. 1 – 20 cm crescent wrench
3. 1 – slip joint pliers
4. 1 – channel lock pliers
5. 1 – wire side cutter
6. 1 – 13 mm socket set with ratchet and 150 mm extension
7. 1 – 13 mm breaker bar
8. 1 – ball peen hammer
9. 1 – set flathead screwdrivers
10. 1 – set Phillips head screwdrivers
11. Other tools as required to maintain and repair cached equipment and tools

6. Trauma Kit

1. Basic supplies to treat trauma injuries to six victims, including large trauma dressings, splints, airways, bag valve device with multiple face masks. Advanced life support equipment (for example medications) if the team is trained to utilise them.
2. Ventilation Fan
    2.1 Electric or gasoline powered fan with extension tube to direct air movement
    2.2 Webbing Kit (each length must be made of a different colour)
        2.2.1 6 – 2.5 cm x 1.6 m
        2.2.2 6 – 2.5 cm x 4 m
        2.2.3 6 – 2.5 cm x 4.8 m

2.2.4 6 – 2.5 cm x 6 m

2.3 All webbing is to be spiral weave nylon, 1820 Kg minimum tensile strength.

ANNEX M: AIRCRAFT CAPACITY

Note: The cargo capacities and cruise speeds listed in the table are averages for that type of aircraft. Actual capacities will vary based on the altitude, ambient air temperature, and actual fuel on board.

Aircraft type	Cruising Speed (knots)	Maximum cargo weight metric tons (2,200 lb)	Cargo hold size L x W x H (cm)	Door size W x H (cm)	Usable cargo volume m^3	Pallet qty. 224 x 318 (cm)	Desired runway length (ft)
AN-12		15	1,300 x 350 x 250	310 x 240	100	n/a	n/a
AN-22		60	3,300 x 440 x 440	300 x 390	630	n/a	n/a
AN-26		5.5	1,060 x 230 x 170	200 x 160	50	n/a	n/a
AN-32		6.7	1,000 x 250 x 110	240 x 120	30	n/a	n/a
AN-72/74		10	1,000 x 210 x 220	240 x 150	45	n/a	n/a
AN-124	450	120	3,300 x 640 x 440	600 x 740	850	n/a	10,000
A300F4-100		40	3,300 x 450 x 250	360 x 260	320	20	8,200
A300F4-200		42	3,300 x 450 x 250	360 x 260	320	20	8,200
A310-200F		38	2,600 x 450 x 250	360 x 260	260	16	6,700
A310-300F		39	2,600 x 450 x 250	360 x 260	260	16	6,700
B727-100F		16	2,000 x 350 x 210	340 x 220	112	9	7,000
B737 200F		12	1,800 x 330 x 190	350 x 210	90	7	7,000
B737 300F		16	1,800 x 330 x 210	350 x 230	90	8	7,000
B747 100F		99	5,100 x 500 x 300	340 x 310	525	37	9,000
B747-200F	490	109	5,100 x 500 x 300	340 x 310	525	37	10,700
B747 400F		113	5,100 x 500 x 300	340 x 310	535	37	n/a
B757 200F		39	3,400 x 330 x 210	340 x 220	190	15	5,800
B767 300F		55	3,900 x 330 x 240	340 x 260	300	17	6,500
DC-10 10F		56	4,100 x 450 x 250	350 x 260	380	23	8,000
DC-10 30F		70	4,100 x 450 x 250	350 x 260	380	23	8,000
IL-76	430	40	2,500 x 330 x 340	330 x 550	180	n/a	2,800
L-100	275	22	1,780 x 310 x 260	300 x 280	120	6	n/a
L-100-20	275	20	1,780 x 310 x 260	300 x 280	120	6	n/a
L-100-30	280	23	1,780 x 310 x 260	300 x 280	120	6	n/a
MD-11F		90	3,800 x 500 x 250	350 x 260	365	26	n/a

TABLE 1.—TYPES OF HELICOPTERS THAT OFDA MAY USE DURING DISASTER OPERATIONS

Helicopter type	Fuel type	Cruising speed (knots)	Typical allowable payload for hovering In ground effect (kg/lb)*	Typical allowable payload for hovering out of ground effect (kg/lb)†	Number of passenger seats
Aerospatiale SA 315B Lama	Jet	80	420/925	420/925	4
Aerospatiale SA-316B Allouette III	Jet	80	526/1,160	479/1,055	6
Aerospatiale SA 318C Allouette II	Jet	95	420/926	256/564	4
Aerospatiale AS-332L Super Puma	Jet	120	2,177/4,800	1,769/3,900	26
Bell 204B	Jet	120	599/1,20	417/920	11
Bell 206B-3 Jet Ranger	Jet	97	429/945	324/715	4
Bell 206L Long Ranger	Jet	110	522/1150	431/950	6
Bell 412 Huey	Jet	110	862/1900	862/1,900	13
Bell G-47	Aviation Gas	66	272/600	227/500	1
Bell 47 Soloy	Jet	75	354/780	318/700	2
Boeing H 46 Chinook	Jet				
Boeing H 47 Chinook	Jet	130	12,210/26,918	12,210/26,918	33
Eurocopter (MBB) BO-105 CB	Jet	110	635/1,400	445/980	4
Eurocopter BK-117A-4	Jet	120	599/1,320	417/920	11
MI-8	Jet	110	3,000/6,6139	3,000/6,6139	20–30
MI-17					
Sikorsky S-58T	Jet	90	1,486/3,275	1,168/2,575	12—18
Sikorsky S-61N	Jet	120	2,005/4,420	2,005/4,420	n/a
Sikorsky S-64 Skycrane	Jet	80	7,439/16,400	7,439/16,400	n/a
Sikorsky S-70 (UH-60) Black Hawk	Jet	145	2,404/5,300	1,814/4,000	14–17

* Use when takeoff and landing areas are relatively flat and load is non-jettisonable. Actual payload will vary based on elevation and temperature, amount of fuel, and other factors.

† Use for sling load missions (cargo is placed in a net or suspended from a line and picked up and moved by the helicopter using a belly hook), and adverse terrain (landing areas on top of steep ridges or adjacent to cliffs) or weather. Actual payload will vary based on elevation and temperature, amount of fuel, and other factors.