



**International Search and Rescue Advisory Group  
GUIDELINES AND METHODOLOGY**

**UNITED NATIONS  
OFFICE FOR THE COORDINATION OF HUMANITARIAN AFFAIRS  
Field Coordination Support Section (INSARAG Secretariat)**



## Record of Changes

Change Description	Date	Posted By
Correction in heading of Annex N (Aircraft Capacity)		
Removal of chapter G (Establishing USAR Capacity). <i>This chapter included quantitative and qualitative requirements for USAR teams that need to be further revised in the INSARAG network before approval for publication.</i>	19 January 2007	FCSS, OCHA Geneva
Inclusion of the revised chapter G “Establishing USAR Capacity”	11 January 2007	FCSS, OCHA Geneva
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Annex M Inclusion of C130 Aircraft Capacity	28 February 2008	FCSS, OCHA Geneva
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F 11 Medical Care, input from the Medical Working Group(MWG)	1 September 2010	FCSS, OCHA Geneva
Annex H: INSARAG Classification checklist	1 September 2010	FCSS, OCHA Geneva
Annex I: INSARAG Reclassification checklist	1 September 2010	FCSS, OCHA Geneva
Annex M: Suggest USAR team Equipment List categorised for clarity	1 September 2010	FCSS, OCHA Geneva
Chapter G: new chapter included	16 February 2011	FCSS, OCHA Geneva
Annex: INSARAG Organisational and Operational Guidelines for Capacity Building of National USAR Teams	16 February 2011	FCSS, OCHA Geneva
A4 "INSARAG Hyogo Declaration" included	16 February 2011	FCSS, OCHA Geneva
Chapter H: new chapter included consisting of former annexes H and J	16 February 2011	FCSS, OCHA Geneva
Chapter I: new chapter included consisting of former annexes I and K	16 February 2011	FCSS, OCHA Geneva

## **FOREWORD**

Since its establishment in 1991, INSARAG has made significant progress and developed a world-wide accepted methodology for the coordination of international USAR teams to the collapsed structure emergencies and minimum standards for the USAR assistance. INSARAG has established a world-wide network of USAR teams, developed the INSARAG Guidelines and established the INSARAG External Classification (IEC) system. Furthermore, the work of INSARAG and its methodology as described in the INSARAG Guidelines is endorsed by the United Nations General Assembly Resolution 57/150 on “Strengthening the Effectiveness and Coordination of International Urban Search and Rescue Assistance” on 26 December 2002.

The INSARAG Guidelines prepared by the USAR responders around the world is the reference document for international USAR response. It is a living document being improved with the lessons learned from major international USAR operations. It is also the reference document for the capacity building at all levels.

The INSARAG Guidelines can remain as the most up-to-date document including the best practices only if all disaster prone and assisting countries participate in its development. Therefore, I strongly encourage both disaster prone and assisting countries to actively take part at the INSARAG activities and adopt the INSARAG Guidelines and Methodology at the domestic level.

Lastly, I would like to thank all the members of INSARAG who have supported the work of INSARAG since its establishment. We should be proud of what INSARAG has achieved and continue with even greater determination to implement the United Nations General Assembly Resolution 57/150 at all levels worldwide.

Ambassador Toni Frisch  
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 by the member States and organisations of INSARAG. The Guidelines are intended as a reference guide for international urban search and rescue (USAR) 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 mandate. 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 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. The INSARAG Mandate entails the development of effective international USAR procedures and operational standards, implementation of UN General Assembly Resolution 57/150 of 22 December 2002 on “Strengthening the effectiveness and coordination of USAR assistance”, improving cooperation and coordination amongst international USAR teams at disaster sites, promoting activities to improve USAR preparedness in disaster prone countries,

development of standardized guidelines and procedures and sharing of best practices amongst national and international USAR teams and defining standards for minimum requirements of international USAR teams.

3. 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.
4. 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.
5. INSARAG activities are designed, as outlined in UN General Assembly Resolution 57/150 of 16 December 2002, to improve emergency preparedness and facilitate capacity building through strengthening the cooperation between international USAR teams and the exchange of information on operational procedures and lessons learned.
6. Any comments on the INSARAG Guidelines 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**

Sponsored by: Afghanistan, Albania, Argentina, Australia, Austria, Azerbaijan, Canada, Chile, Colombia, Croatia, Czech Republic, Denmark, Egypt, Georgia, Germany, Greece, Guatemala, Hungary, Iceland, India, Italy, Japan, Lesotho, Luxembourg, Malaysia, Malta, Mexico, Monaco, Netherlands, New Zealand, Nicaragua, Norway, Peru, Poland, Portugal, Republic of Korea, Republic of Moldova, Romania, Russian Federation, Slovakia, South Africa, Spain, Sweden, Switzerland, Tajikistan, the former Yugoslav Republic of Macedonia, Tunisia, Turkey, United Kingdom of Great Britain and Northern Ireland and United States of America: draft resolution [*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<sup>1</sup> and 1999/1<sup>2</sup> 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,<sup>3</sup>

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

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

<sup>3</sup> 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 INSARAG Hyogo Declaration from the First Global Meeting of the International Search and Rescue Advisory Group (INSARAG), Kobe, Japan 14 -16 Sept 2010**

“Recognition and Strengthening of International Urban Search and Rescue Operational Standards”

*The INSARAG, at the occasion of the Global Meeting held in Kobe, Japan with 188 participants from 70 countries and 7 organisations*

*Expressing its reaffirmed commitment to UN General Assembly Resolution 57/150 of 16 December 2002 on ‘Strengthening the Effectiveness and Coordination of International Urban Search and Rescue Assistance’ as the guiding document for international urban search and rescue assistance together with commitment to the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters as the main international policy guidance for risk reduction, including preparedness activities in this field*

*Noting with appreciation the support expressed in the numerous resolutions for the UN Office for the Coordination of Humanitarian Affairs (OCHA) in its capacity as the INSARAG Secretariat, by the Economic and Social Council (ECOSOC) and the UN General Assembly in their endorsement of, and encouragement to, INSARAG and its activities*

*Taking this opportunity to express its solidarity with the people of Hyogo Prefecture who are commemorating the 15<sup>th</sup> Anniversary of the Great Hanshin Awaji Earthquake of 1995*

*Expressing its appreciation to the Government of Japan for hosting this first ever INSARAG Global Meeting in Kobe in 2010 and to the Government of Switzerland for the valuable support provided, therefore, the Member States present hereby resolve the following:*

- 1. Expresses its satisfaction with the continuing progress made by INSARAG in the past two decades in creating a well established, professional Urban Search and Rescue (USAR) network that works to ensure rapid response and coordination to sudden onset disasters i.e. earthquakes, in support of the affected population and governments,*

2. *Recognizes* the increasing and expanded role played by international urban search and rescue teams in the response to major earthquakes, as demonstrated recently in Haiti (2010), not only focused on search and rescue, but also on a more comprehensive level of humanitarian assistance *towards recovery, and emphasises* the continued determination of INSARAG to *maintain* working towards improving the professionalism and capacity of international urban search and rescue teams to respond to earthquakes and collapsed structure emergencies, and also through the strengthening of national capacities in order to deal with such emergencies utilising their own resources,
3. *Accordingly expresses its appreciation and support* for the establishment of independently verifiable, operational standards for international urban search and rescue teams through the INSARAG External Classification (IEC) process, and urges and encourages all Member States with urban search and rescue teams to be deployed internationally to ensure their teams take into account the IEC process,
4. *Reaffirms its full support for* disaster-affected countries in executing their primary role to initiate, coordinate and organise the international humanitarian assistance on their territories,
5. *Therefore urges and highly recommends* that building national, local and community capacity is critical for effective response to earthquakes, collapsed structure *and other related* emergencies in a rapidly urbanizing world, and welcomes the work undertaken by the INSARAG network to develop recommendations for operational and organisational guidelines for capacity building of national USAR teams, and encourage Member States to support such efforts,
6. *Also concerned that* an additional burden may be placed on the resources of affected countries by those international urban search and

rescue teams which are inadequately *prepared*, trained and equipped. Therefore encourages, all countries to enhance and promote capacity building at national level and invites countries affected by disasters to consider the specific assistance of INSARAG IEC teams to respond *by offering* priority access to such teams that will make a genuine *and meaningful* difference in the life-saving search and rescue phase of an earthquake or other disasters involving collapsed structures,

7. *Calls upon* all urban search and rescue teams responding internationally to earthquakes to follow the field coordination procedures of OCHA, especially those laid down in the INSARAG Guidelines and Methodology and coordinate their work with the directions of the Reception and Departure Centre (RDC) and the On-Site Operations Coordination Centre (OSOCC) established in the disaster area by United Nations Disaster Assessment and Coordination (UNDAC) Teams,
8. *Expresses* the determination of all members of INSARAG to strengthen collaboration with OCHA, International Strategy for Disaster Reduction (ISDR), United Nations Development Programme (UNDP), International Federation of Red Cross and Red Crescent Societies (IFRC) and all other international and regional entities involved in preparedness and response, through the facilitation of the INSARAG Secretariat to greatly improve the preparedness for, and response to, earthquakes and other disasters with collapsed structures and to build up capacities consistent with the international humanitarian architecture,
9. *Expresses the commitment to* renew its efforts to strengthen and consolidate further cooperation between the three Regional Groups of INSARAG (Americas; Asia-Pacific as well as Africa, Europe and Middle East), especially in the areas of *preparedness*, capacity building, operations and training as well as cooperation amongst Member States within each region - *in coordination with other* relevant regional organisations,

10. *Calls upon* the Member States of the United Nations to continue fully supporting implementation of the provisions of UN General Assembly Resolution 57/150 of 16 Dec 2002 on ‘*Strengthening the Effectiveness and Coordination of International Urban Search and Rescue assistance*’ and to continue to support the activities of INSARAG, and
  
11. *In conclusion, expresses* its satisfaction with the outcome of the First INSARAG Global Meeting and affirms its intent to hold the next INSARAG Global Meeting - in 2015.

*16 September 2010 in Kobe, Japan*

**A5 How to Contact FCSS, Emergency Service Branch, OCHA Geneva**

Office for the Coordination of Humanitarian Affairs

Field Coordination Support Section, Emergency Services Branch

Palais des Nations

CH 112 Geneva 10, Switzerland

Telephone: +41(0)22 917 1234

Facsimile: +41(0)22 917 0190

Email: [insarag@un.org](mailto:insarag@un.org)

## **B INTERNATIONAL SEARCH AND RESCUE ADVISORY GROUP (INSARAG)**

### **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 the 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 including its international USAR teams and the affected countries. The methodology as defined in the INSARAG 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**

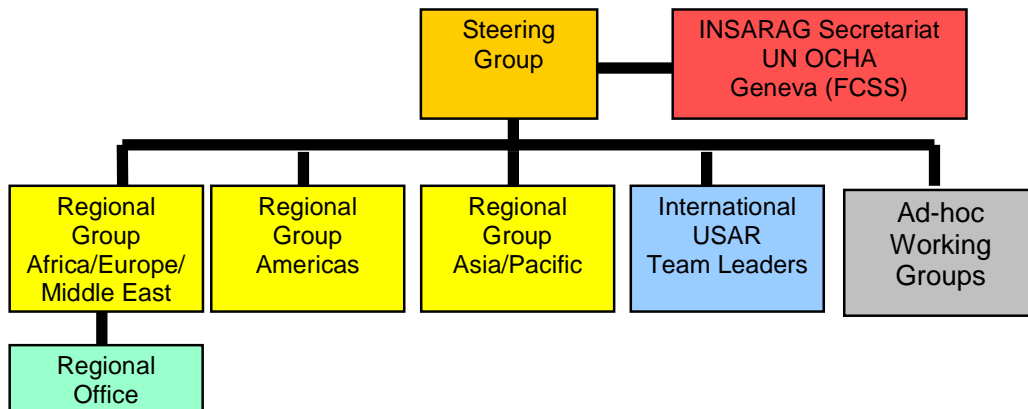
1. The INSARAG Guidelines address international USAR response in a cycle, which includes the following phases:
  - 1.1 **Preparedness** – describes the period between disaster responses during which time lessons learned from previous experience are reviewed and relevant amendments and improvements to Standard Operating Procedures (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 as 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 Reception / Departure Centre (RDC), registers with the On Sit Operations Coordination Centre (OSOCC), reports to Local Emergency Management Agency (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 Group

1. INSARAG is directed by a Steering Group, 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 Group meets annually to determine the strategic direction and policies of INSARAG.

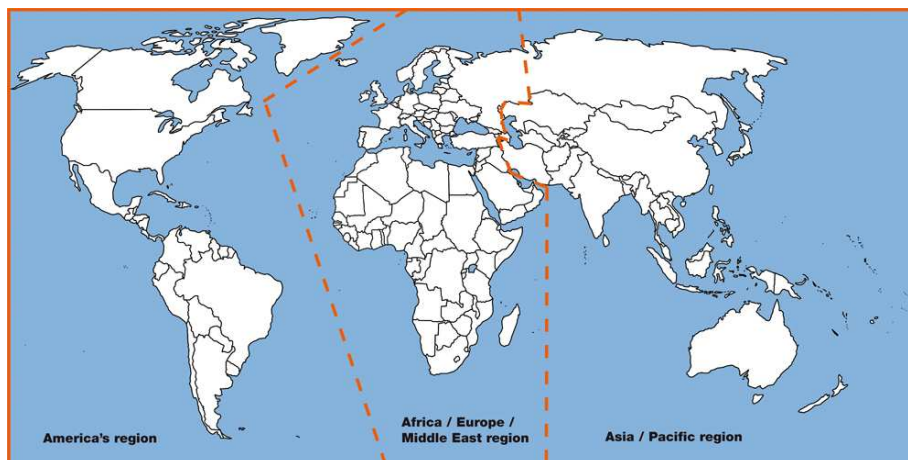


### B3.2 INSARAG Secretariat

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

### B3.3 INSARAG Regional Groups

1. The INSARAG Regional Groups are arranged as follows: Africa/Europe/Middle East 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 Group are implemented, and to assimilate relevant information from participating countries for submission to the Steering Group.
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 Group.



### **B3.4 INSARAG Regional Antennae**

1. The decision to create an INSARAG Regional Antennae is taken by the INSARAG Steering Group. 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 an 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.
  - 3.4 Assisting in active promotion of INSARAG and its activities in a designated region.

### **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 Group, 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 revisions, training, medical, search dogs, etc.). On completion of the task, the group disbands.

### **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 the 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 Country Focal Point**

1. The INSARAG Country Focal Point should be a senior officer in the governmental Ministry responsible for the management of international and/or national disaster response.
2. Ideally, the INSARAG Country Focal Points should be occupying 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.
3. The responsibilities of the INSARAG Country Focal Point include:
  - 3.1 Act as single contact person of the Government to the INSARAG Secretariat in the United Nations Office for the Coordination of Humanitarian affairs (OCHA) in Geneva and the respective Regional Group
  - 3.2 Promote INSARAG methodology as defined in the GA Resolution 57/150 of 16 December 2002 on Strengthening the Effectiveness and Coordination of International USAR Assistance” in the own country and among disaster managers at all administrative levels
  - 3.3 Promote that INSARAG methodology for the receipt of international assistance, as defined in the INSARAG Guidelines or GA Resolution 57/150 of 16 December 2002 be included into the national disaster management plan.
  - 3.4 Represent or ensure representation of the own country at meetings of the respective INSARAG Regional Group

- 3.5 Disseminate information from the INSARAG Secretariat, in particular invitations to INSARAG meetings, workshops, training courses or USAR exercises, among relevant disaster management authorities and USAR teams in own country
- 3.6 Ensure that national USAR teams that are envisaged to be deployed to international disaster response operations meet INSARAG standards.
- 3.7 Be prepared to confirm the compliance with INSARAG Guidelines for in-country NGO's, upon their request, in order to allow NGO's to be included in the INSARAG USAR Directory on the INSARAG Website.
- 3.8 Ensure regular updates on the Virtual OSOCC in case of emergencies regarding planned or completed response of the own country. In case of a disaster in the own country, ensure that situation updates, national response activities and priority needs are provided on the Virtual OSOCC on a regular basis.
4. In addition to the above, the INSARAG country Focal Point should have the capacity to verify or decide, whether the own country is prepared support INSARAG activities as listed below:
  - 4.1 When the country has accepted to do so, to host INSARAG Awareness training courses for disaster managers at all administrative levels in the country supplemented by additional participation of disaster managers from neighbouring countries or countries within the region. The purpose is to introduce the INSARAG network and methodology to disaster managers. (hosted and organized by the host country, co-organised and facilitated by the INSARAG Secretariat)
  - 4.2 When the country is the Chair of the INSARAG Regional Group, to host meetings of the respective INSARAG Regional Group (2-day meeting with 50-80 participants, chaired by the Regional Chair and co-organised by the INSARAG Secretariat);
  - 4.3 When the country has accepted to do so, to host INSARAG Team Leaders meetings (chaired by the host country, co-organised and facilitated by the INSARAG Secretariat);

- 4.4 When the country has accepted to do so, to host other INSARAG related workshop (e.g. Guidelines, USAR Classification) (chaired by dedicated chairperson, facilitated by INSARAG Secretariat);
- 4.5 When the country has accepted to do so, to host INSARAG Regional USAR exercises. The exercise is conducted in command post style. (hosted and organized by the host country, co-organised and facilitated by the INSARAG Secretariat)
5. If the INSARAG Country Focal Point should retire from his/her assignment, he/she should ensure that a suitable replacement is identified and duly introduced to the responsibilities in order to ensure continuity.

### **B3.8 INSARAG Operations Focal Point**

1. If the country is prone to earthquakes and other disasters that can cause collapsed structure, or if the country is a provider of international USAR assistance, an INSARAG Focal Point for Operational Issues should also be identified. If appropriate, this could be the same person as the INSARAG Country Focal Point.
2. The Operations Focal Point is responsible to act as counterpart to the INSARAG Secretariat during disaster response operations of international significance. The tasks of the Operations Focal Point include:
  - 2.1 If the disaster is in the own country:
    - 2.1.1 To provide information updates in regular intervals to the INSARAG network on the Virtual OSOCC at <http://ocha.unog.ch/virtualosocc>;
    - 2.1.2 The information updates should include specification of priority needs and assessment and operational results;
    - 2.1.3 The Operations Focal Point should inform national and local disaster management about INSARAG methodology and facilitate the establishment of Reception/Departure Centre and OSOCC.
  - 2.2 In case the own country is responding to a disaster in a third country:
    - 2.2.1 To provide information updates in regular intervals to the INSARAG network on the Virtual OSOCC at <http://ocha.unog.ch/virtualosocc>;

- 2.2.2 The information updates should include the own country's planned or implemented response, such as deployment of response teams (USAR) and in-kind or cash contributions.
3. If the Operations Focal Point should retire from his/her assignment, he/she should ensure that a suitable replacement is identified and duly introduced to the responsibilities in order to ensure continuity.

## **C INTERNATIONAL USAR RESPONSE ENTITIES**

### **C1 UN OCHA**

1. UN OCHA serves as the INSARAG Secretariat of the INSARAG Steering Group and is mandated to coordinate international assistance in disasters and humanitarian crises exceeding the capacity of the affected country. Many actors such as governments, Non-Government Organizations (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 and 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 United Nations Disaster Assessment and Coordination (UNDAC) Team is a UN OCHA tool used 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 establishing inter-cluster coordination mechanisms (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 USAR teams in these areas will establish a sub-OSOCC. When this situation arises, the main OSOCC will generally be established in a major national coordination centre with one or more sub-OSOCC's being established at various disaster sites as required.



## **C7 Virtual OSOCC (VO)**

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

## **C8 Global Disaster Alert and Coordination System**

1. The Global Disaster Alert and Coordination System (GDACS) at <Http://www.gdacs.org>, provides the international disaster response community with near real-time alerts about natural disasters around the world and tools to facilitate response coordination.
2. GDACS will be activated in major natural, technological and environmental disasters, which overwhelm the affected country's response capacity and require international assistance.



## **D INTERNATIONAL USAR COORDINATION**

### **D1 UN OCHA Responsibilities**

#### **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 VO:
  - 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 practices of the affected country, weather, safety and security issues;
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 VO 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 Support Modules as required.

#### **D1.4 Demobilisation**

1. Manage the VO and post regular situation updates;
2. Provide support to 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**

### **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, OSOCC and Base of Operation (BoO) facilities;
  - 4.5 Prepare to support the logistic requirements of USAR Teams including interpreters, guides, fuel, transport, water, maps, BoO location;
  - 4.6 Develop a capacity to post regular updates and briefings to the VO 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 VO;
5. Provide regular situation updates on the VO;
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.
3. Facilitate (as required) USAR teams transition into other humanitarian operations “beyond the rubble”;
4. Facilitate in-kind donation of USAR team equipment left for the affected government;

## **D3 Assisting Country Responsibilities**

### **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.

### **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 VO 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 VO.

### **D3.3 Operations**

1. Provide all logistical and administrative support that may be required by the team while it is 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 VO;
3. Once its USAR teams are no longer required, provide transportation home.

## **D4 International USAR Teams Responsibilities**

### **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 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 VO;
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 OSOCC;
4. Maintain a 24-hour Operations Focal Point.

#### **D4.3 Operations**

1. Establish or sustain a RDC and 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 Mission Summary Report (Annex G) to the OSOCC or RDC prior to departure.
3. Become available (as required and possible) for other humanitarian operations “beyond the rubble”;
4. Consider in-kind donation of USAR team equipment left for the affected government;

#### **D4.5 Post Mission**

1. The INSARAG Secretariat requests that a copy of the USAR Team Post Mission Report is received within 45 days of the teams return;
2. Analyse its deployment performance and amend SOPs as required.

#### **D5 Responsibilities when establishing an initial 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 VO 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 teams on the current situation and direct them to the OSOCC;
  6. Request additional staff from incoming teams to strengthen the RDC and OSOCC as appropriate;
  7. Operate the initial RDC until the arrival of the UNDAC team;
  8. Prepare to hand over the RDC to the UNDAC team upon its arrival;
  9. Be prepared to augment the RDC with staff to support the UNDAC team as required.

## **D6 Responsibilities when establishing an initial OSOCC**

1. Coordinate activities with LEMA
  - 1.1 Clarify the role of the OSOCC regarding the coordination of international actors and relief items;
  - 1.2 Establish close cooperation and 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 VO 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 and the USAR teams classification level;
- 6 Register and brief incoming teams;
- 7 Request additional staff from incoming teams to strengthen the RDC and OSOCC as appropriate;
- 8 Operate the initial OSOCC until the arrival of the UNDAC team;
- 9 Prepare to strengthen the OSOCC with a liaison when the UNDAC team arrives.

#### **D7 Responsibilities within an OSOCC**

1. Perform all coordination duties required during operation in a initial 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 team leaders 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 OCHA 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).

## **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.

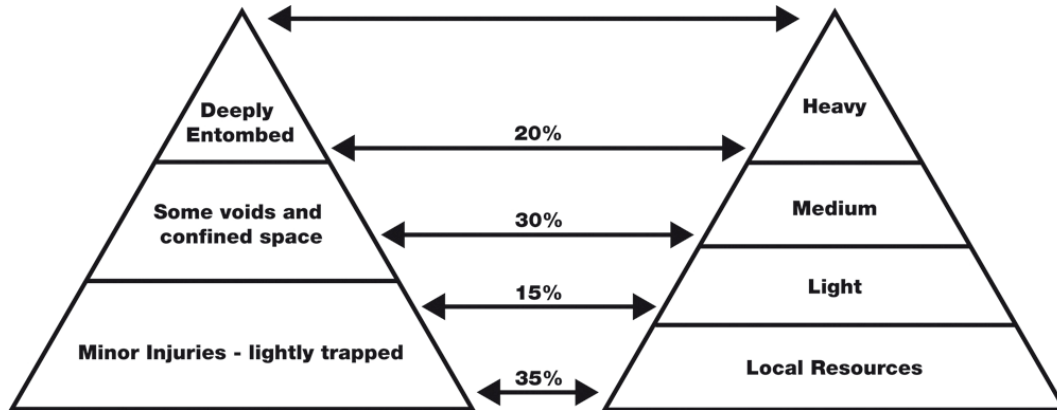


Figure 1

5. The chance of a trapped victim surviving decreases rapidly with time and it is therefore of utmost importance that the appropriate resources are assigned to the appropriate sites as soon as possible. The INSARAG external classification (IEC) 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 normally 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 structural collapse incidents. Medium USAR teams are required to be able to search for entrapped persons.

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 VO. A medium team must be adequately staffed to allow for 24 hour operations at 1 site for up to 7 days.

- 7.3. **Heavy USAR Teams** have the operational capability for difficult and complex technical search and rescue operations. Heavy USAR teams are required to be able to search for entrapped persons use both canine and technical systems, and are envisaged for international assistance in disasters resulting in the collapse of multiple 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 VO. A heavy team must be adequately staffed to allow for 24 hour operations at 2 separate sites for up to 10 days.
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 Guide for Minimum Acceptable Capacities. (chapter G10)
9. The INSARAG Secretariat will arrange to conduct the INSARAG External Classification (IEC) of international USAR teams when requested to do so by the USAR teams National Focal Point (chapter I2).

## **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 concern the relationship between USAR team members and the community of the affected country.
4. All members of an INSARAG USAR team are ambassadors of their team, their country and represent the wider INSARAG community. 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, their home country as well as the wider INSARAG community.
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.
6. USAR teams that deploy international must be self sufficient so as to ensure they are at no time a burden to the already overwhelmed country they are trying to assist.

#### **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. Wearing of sunglasses during conversations may be deemed to be inappropriate;

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



## **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 VO 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 OSOCC, if required.
8. Prior to departure, a USAR team will post an entry on the VO 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;
  - 5.6 Logistical replenishment advise;
6. Prepare and distribute situation reports to the OSOCC.
7. Consider long-term plans for the purpose of re-supply and reassignment.
8. Use of a Liaison Officer (LO) assigned to the OSOCC is strongly advised this practice greatly assists communications between teams and the OSOCC.
9. Documentation should include:
  - 9.1 Chronological log of events;
  - 9.2 Plan of action;
  - 9.3 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 an initial 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 liaison 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 and equipment.
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 management and operations. 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 an initial RDC and 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.
4. It is essential that all information reported to the OSOCC be validated by team

members on the ground. This ensures any planning by the OSOCC is performed on the most accurate data.

### **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 information on the current situation. If the OSOCC has not been established, the first arriving USAR teams are requested to set up an initial 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 logistical support locally available;
  - 4.5 Availability and location of a BoO;
  - 4.6 Availability of specialised equipment.
  - 4.7 Safety and security issues

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 in the area assigned to the team;
  - 5.13 Contacts 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 the objectives of LEMA;
  - 1.3 Briefing and assignment of 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 determine 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 the requirements of LEMA 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 (Annex D) 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 (Annex G) 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 (Annex E) 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 VO 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 and reinforce the ethics considerations;
  - 1.3 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.);
  - 1.4 Ensure an entry is made on the VO that alerts affected country officials to its details to expedite the entry process including:
    - 1.4.1 Visa requirements;
    - 1.4.2 Logistics requirements;
    - 1.4.3 Specialised communications equipment;
    - 1.4.4 Search, rescue and medical equipment;
    - 1.4.5 Emergency medical pharmaceuticals;
    - 1.4.6 Search dogs;
2. During transit to the disaster, USAR teams are required to:
  - 2.1 Identify and prioritise the necessary points of contact, both for the team and its National Focal Point;
  - 2.2 Ensure security of the USAR team personnel and its equipment;
  - 2.3 Receive direction from the OSOCC and or the LEMA;
  - 2.4 Coordinate with other USAR teams;
  - 2.5 Identify its chain of command and reporting requirements;
  - 2.6 Agree to integrate into ongoing operations established by the affected country;
  - 2.7 Plan for media relations;
  - 2.8 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 the objectives of LEMA;
  - 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:

Team members are trained to understand and conform to security practices as specified by the UN Department of Safety and Security. Depending on the security levels in place it may be necessary for teams to be escorted by security services. 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;

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 role 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**

1. Satellite phone;
2. VHF / UHF radio;
3. Internet access;
4. Cellular phones.

### **F6.3 Preparedness**

1. Use allocated Call Signs.
2. Use the Phonetic Alphabet (Annex L).
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.
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 (Annex F) to the Virtual OSOCC.
2. Monitor the VO as often as possible for information updates.
3. Update the VO with ETA, point of entry and logistical support needs on arrival.
4. Complete hard copy of USAR Team Fact Sheet (Annex F) 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 F12.7).
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 should be as accurate as possible. A list of guidelines to follow when dealing with the media is available in Annex H.

#### **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 a 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 (50 square meters);
  - 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 restored to its original state as far as is possible.

## F8.6 Base of Operation Requirements

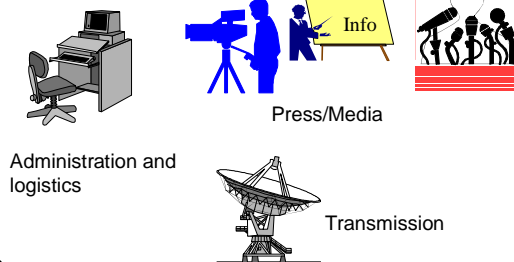
**What are the needs, requirements or demands for a Basic Camp?**

- Access to water, electrical power and sewerage.
- Access for cars and trucks.
- Close to the site.
- Area < 50 square meters (Heavy Team) – dry, flat, demarcation, overlooking/survey.

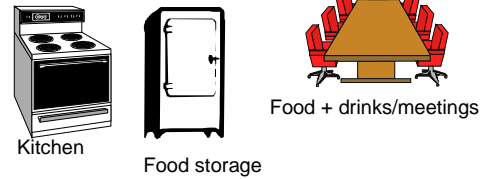
### Securities



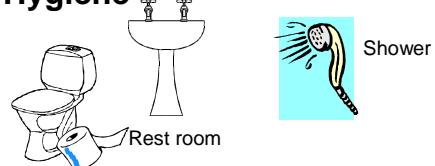
### Working Places



### Catering + Social Contact



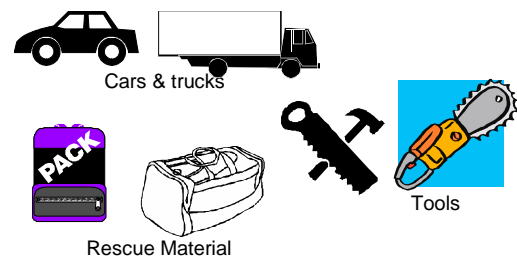
### Hygiene



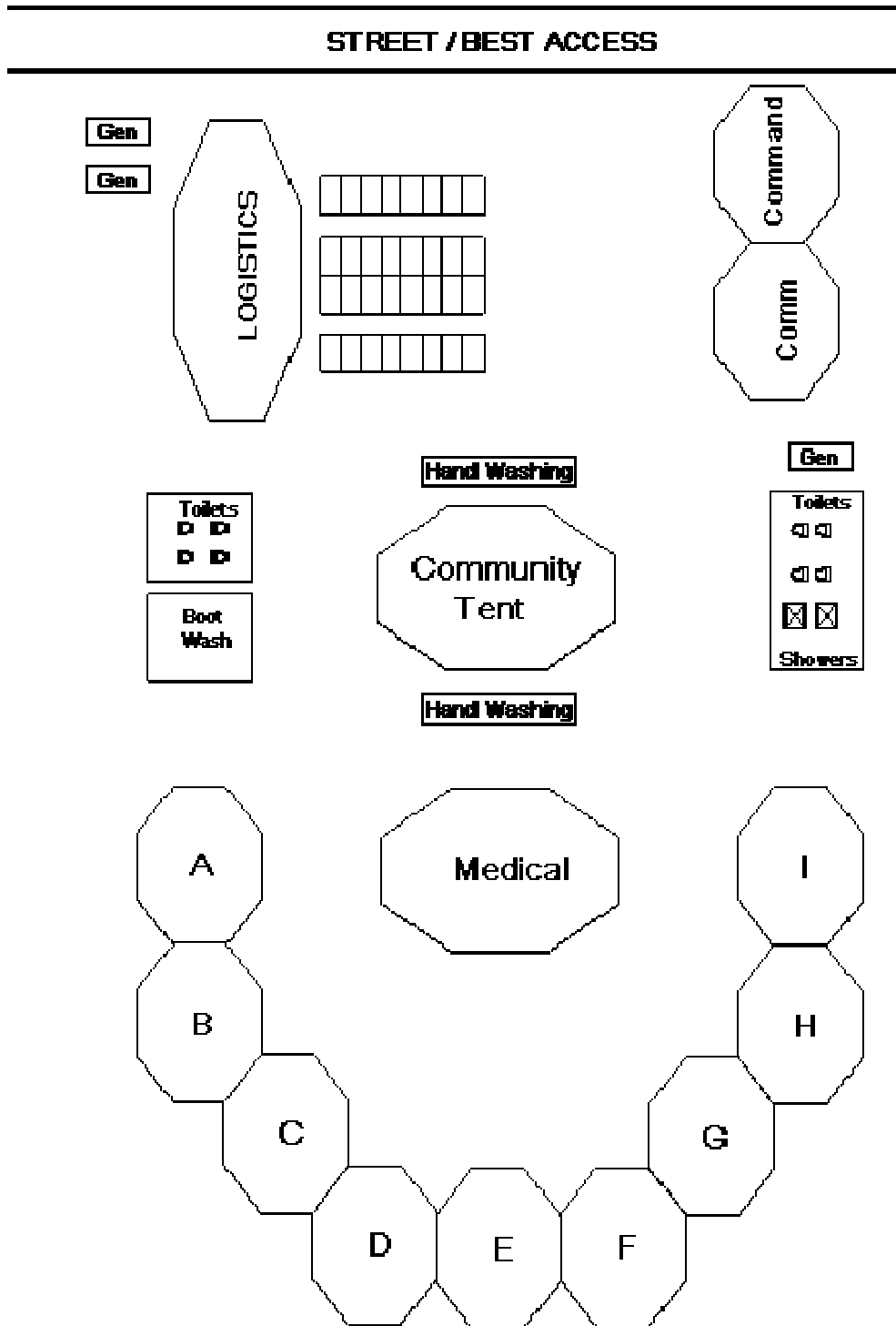
### Sleep, Rest + Recreation



### 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 VO;
  - 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 VO;
  - 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 and their handlers play an integral role in USAR for the rapid detection of victims following a structural collapse. Search dog teams function within a USAR team to assist in the location of trapped victims by detecting live human scent and are able to search large areas in a relatively short period of time. The precise detection of victims is done most effectively when the search dog team and the technical search component work in close collaboration.

### **F10.2 Preparedness**

1. The USAR Team management must ensure that:
  - 1.1 Canine teams regularly participate in trainings and exercises.
  - 1.2 An updated list of certified canine teams is available at all times
  - 1.3 Canine handlers have experience as a search dog handler/trainer (police, SAR, etc.) as well as experience working within a search group.
  - 1.4 Canine handlers and canine group leaders are confident in canine search handling and able to interpret canine behaviour and report the results.
  - 1.5 Canine teams have the possibility to train with the other members of the USAR Team (e.g., technical search and rescue).
  - 1.6 Veterinary requirements are met:

- 1.6.1 Valid rabies vaccination as well as any additional vaccinations as required by the home country.
- 1.6.2 Annual veterinary health checks.
- 1.6.3 Parasite-control (e.g. worms, fleas, ticks, etc.)
- 1.7 All deployable canines are micro-chipped using an ISO compatible transponder.
- 1.8 They have an understanding of international border control processes associated with search dogs.

### **F10.3 Mobilisation**

- 1. The USAR Team management must ensure:
  - 1.1 That appropriate caging and/or containment for canines is available.
  - 1.2 The readiness of the canines (health, fitness, hygiene, diet, etc.) for travel, including all specialised gear and equipment.
  - 1.3 That the canines have an opportunity to relieve themselves immediately prior to departure.
  - 1.4 That vaccination cards are available with the canine teams at all times while on deployment.
  - 1.5 That an ISO compatible micro-chip reader is available and accompanies the USAR team during USAR operations.

### **F10.4 Operations**

- 1. Two (2) or three (3) canine teams (canine team = 1 dog and 1 handler) work together as a group and are led by a group leader. Canine teams work together in groups in order to confirm canine indications. Canine groups must be integrated into the command and control structure.
- 2. A minimum of two (2) canine groups are necessary to safely conduct 24- hour operations on one work site and four (4) canine groups are necessary to safely conduct 24-hour operations in two (2) different work sites. This provides adequate canine resources to operate in 12-hour shifts and ensures that canine teams will have appropriate rest periods which will enable the team to function effectively, safely and continuously for a longer period of time.

3. Canine and Technical search complement each other and should be engaged accordingly.
  - 3.1 The USAR team should use and coordinate the search methods in a suitable way.
  - 3.2 Canines should demonstrate identifiable victim alert even if the canine handler is out of sight.
  - 3.3 Canines should move over difficult terrain with ease and demonstrate commitment to scent source.
  - 3.4 The canine group should demonstrate appropriate canine care, safety, and welfare.
  - 3.5 A canine search team should be able to locate victims that are buried at least 1m vertically below or laterally away from the canine.
  
4. Group leader responsibilities include:
  - 4.1 Ensure the physical readiness of searchers through proper nutrition, water intake, rest and stress control techniques;
  - 4.2 Site assessment to include safety, structural, hazmat, number of victims and any other information relevant to the search;
  - 4.3 Based on the site assessment develop search strategy and assign tasks;
  - 4.4 Ensure proper equipment needs are met and equipment is operational prior to each work period;
  - 4.5 Ensure use of all safety practises and procedures;
  - 4.6 Carry out assignments as directed;
  - 4.7 Briefs, debriefs and observes the canine team during search;
  - 4.8 Reports relevant information to appropriate USAR team manager and coordinates any follow-up or reassignment activities;
  - 4.9 Brief shift replacement fully on all ongoing operations when relieved at work cycle rotations;
  - 4.10 Report any signs/symptoms of incident stress, injury, fatigue, or illness in searchers to immediate supervisor;
  - 4.11 Participate in USAR team daily briefings and meetings as requested.

5. Canine handler responsibilities include:
  - 5.1 Ensure the physical readiness of handler and canine through proper nutrition, water intake, rest and stress control techniques;
  - 5.2 Completing tasks as assigned and reporting results to group leader;
  - 5.3 Keep the group leader apprised of any supply deficiencies or equipment malfunctions;
  - 5.4 Ensure while not operating on the disaster site that the search dog is under direct control of a USAR team member and is clearly identified as a search dog by a vest or other visible means;
  - 5.5 Must monitor themselves and their canine for adequate rest, injuries, stress or fatigue and report any deficiencies, including subtle signs of stress or injury, to the canine group leader;
  - 5.6 Ensure a safe and secure place for the canine at all times;

#### **F10.5 Demobilisation**

1. The USAR Team management must ensure:
  - 1.1 That appropriate caging and/or containment for canines is available;
  - 1.2 The readiness of the canines (health, fitness, hygiene, diet, etc.) for travel, including all specialised gear and equipment;
  - 1.3 That the canines have an opportunity to relieve themselves immediately prior to departure.

#### **F10.6 Post Mission**

1. The canine group prepares and delivers a report on the mission to their USAR Team.
2. Full team debrief should occur.
3. A post mission veterinary check is recommended.

### **F11 Medical Care**

#### **F11.1 Introduction**

1. The medical component of a USAR team is required to ensure the health and well being of the USAR team members including the search dogs and victims encountered during USAR operations. It is required to

carry out its tasks and responsibilities in accordance with the INSARAG disaster response cycle which is preparedness, mobilisation, operations, demobilisation and post mission.

2. The medical component of a USAR team is essential for effective USAR operations. It consists of qualified medical professionals who are also oriented to the USAR environment and function as an integral component of the USAR team. USAR medical personnel must be capable of functioning in an austere environment and must therefore be appropriately trained and prepared to render emergency medical care to seriously ill or injured patients in the USAR environment.
3. The priorities of the medical component of a USAR team are to provide preventative health care, primary health care and emergency medical care to USAR team members, including the search dogs in collaboration with their handlers. With the approval of the government of the affected country, they are also required to provide appropriate emergency medical care to entrapped victims during USAR operations, which is to be initiated as soon as the victim has been located and can be accessed. This care is to be continued until these patients can be handed over to local health resources or similar capability (e.g., field hospital).
4. The medical component of a USAR team requires sufficient staff and resources to conduct the activities further described in section 1.4. It is important to note the full list of clinical capabilities described in Section 1.4.2 are to be available at each site where the USAR team may be working, while simultaneously maintaining a medical capacity at the Base of Operations (BoO).
5. While some USAR teams may have the medical capacity to do so, the minimum INSARAG requirements do not require the medical

component of a USAR team to provide a community medical resource (e.g. general field hospital) at the disaster site.

6. The primary response objectives of the medical component of a USAR team are to:
  - 6.1 Provide critical medical input into the decision making processes of USAR team leaders throughout the mission cycle;
  - 6.2 Provide health monitoring, primary care and emergency medical care for USAR team members during mobilisation, operations, demobilisation;
  - 6.3 Provide emergency veterinary care for the USAR team search dogs in collaboration with their handlers during mobilisation, operations, demobilisation;
  - 6.4 With the approval of the government of the affected country, provide emergency medical care to victims, including within confined space, during the rescue phase until handover to local health resources or similar capability;
  - 6.5 Provide medical input to the USAR team management regarding safety and health considerations including environmental and public health hazards as well as care of deceased;
  - 6.6 Gather medical information during USAR reconnaissance operations;
  - 6.7 Establish and regularly review emergency medical evacuation and repatriation plans for USAR team members;
  - 6.8 Provide medical input and or support to the USAR Team Leader that will facilitate the transition from the rescue phase to the early recovery phase.

### **F11.2 Capabilities**

1. The following list describes the minimum capabilities required by the medical component of a USAR team. It is important to note, that any USAR medical member is required to adhere to their clinical Scope of Practice based on their qualifications held within their home country.

2. It should also be noted that the appropriate use of the capabilities described should always be considered in the context of the USAR environment and available medical resources.
  
3. Special Note - The full list of clinical capabilities described in Section 5 below should be available at each work site where the team is engaged. This is to ensure that the potential care likely required during USAR medical operations is immediately available when needed and further to ensure patient care (team member or local victim) is provided according to acceptable clinical and ethical standards.
  
4. Primary Care for Team
  - 4.1 Preventive medicine;
  - 4.2 Medical monitoring;
  - 4.3 Treatment as required.
  
5. Emergency Care (Adult & Paediatric)
  - 5.1 Casualty assessment, treatment and evacuation prioritisation;
  - 5.2 Management of medical emergencies;
  - 5.3 Management of trauma emergencies to include:
    - 5.3.1 Management of Tension Pneumothorax;
    - 5.3.2 Wound care;
    - 5.3.3 Immobilization and packaging;
  - 5.4 Advanced airway management;
  - 5.5 Advanced cardiac resuscitation;
  - 5.6 Management of shock;
  - 5.7 Sedation & pain management;
  - 5.8 Management of crush syndrome;
  - 5.9 Amputations and dismemberment (See Note)

Note: Amputations (live victims) and dismemberment (deceased) have always generated much discussion in the USAR community and is a complex issue with social, religious and ethical aspects to be considered. Though there may be extremely rare situations in which



these two procedures are indicated as a last resort, the better course of action is to avoid these if at all possible. There are multiple considerations:

#### Amputations

There are multiple limb salvage score criteria in use around the world. These are intended for use in the controlled environment of the operating theatre with full access to the victim and even these are often questioned when applied. It is unrealistic to expect the USAR medical provider to make a determination as to whether a limb is salvageable or not.

Amputation should be considered a procedure of absolute last resort when:

- Hazards present an immediate threat to life of the victim or the USAR team members;
- Amputation is considered to present a better chance survival than resuscitation while entrapped in the collapsed structure;

Other factors to consider in the decision before conducting an amputation include:

- Each team is encouraged to have a decision making process which ideally includes the USAR Team Leader;
- Level of care available post-extrication;
- Discussion with patient (if possible);
- Discussion with LEMA (if possible);
- Local cultural, religious considerations;
- USAR medical teams should carry minimal equipment and supplies for conducting a field amputation or completion of an amputation.

#### Dismemberment

There are even fewer situations in which dismemberment of the deceased is acceptable to permit USAR operations to continue. If this is to occur it should always be in the context of saving a live victim. Ideally, this

procedure should not be performed by foreign USAR medical teams and instead by local medical teams, in conjunction with relevant forensic authorities.

6. Mental / Behavioural Healthcare
  - 6.1 Capability to identify and manage abnormal stress reactions in team members.
  
7. Search Dog Emergency Care
  - 7.1 Provide emergency veterinary care for the USAR team search dogs in collaboration with their handlers.
  
8. Health and Hygiene
  - 8.1 Water and sanitation; vector control;
  - 8.2 Environmental health (e.g., extreme temperature conditions);
  - 8.3 Hazardous materials exposure.
  
9. Care of Deceased
  - 9.1 Procedures for care of deceased – team members;
  - 9.2 Procedures for care of deceased – local population (advised by local authorities).

### **F11.3 Preparedness**

1. Management - Medical
  - 1.1 The preparedness roles and responsibilities of the medical component of a USAR team may vary according to the sponsoring agency however the following recommendations are provided:
    - 1.1.1 The personnel of the medical component of a USAR team are required to maintain a constant state of mission readiness and comply with all other general requirements as determined by USAR team policy, including:

- 1.1.1.1 Meet the physical and mental requirements of the sponsoring agency;
- 1.1.1.2 Be a team player, capable of improvising and functioning under adverse conditions for extended periods of time and be capable of adhering to the command structure of the team as established by the sponsoring agency;
- 1.1.1.3 Maintain current vaccinations as required by USAR team policy;
- 1.1.1.4 Be able to function safely at heights, in confined spaces and on or around environments created by large scale structural collapse incidents;
- 1.1.1.5 Understand and adhere to safe working practices and procedures as required by USAR team policy;
- 1.1.1.6 Have a working knowledge of USAR team response system, organisational structure, operating procedures, safety practices, terminology, knowledge of team equipment, and communications protocols;
- 1.1.2 Completion of required training for USAR medical team members;
- 1.1.3 Attendance at medical drills and exercises as required by USAR team policy;
- 1.1.4 Participation in medical cache maintenance to ensure a constant state of mission readiness (This has the added benefit of ensuring members of the medical component of the USAR team are familiar with the medical cache prior to deployment.);
- 1.1.5 Provide medical input and advice to the USAR team management during the preparedness phase (e.g. advice on general cache as it impacts the health of the team);
- 1.2 Health Status Monitoring
  - 1.2.1 It is recommended that sponsoring agencies develop a policy to evaluate the health status of individual USAR team members, both prior to joining the team as well as on a cycle basis (as determined by USAR team policy) going forward. The absence of such a policy may increase the risk during deployment of:

- 1.2.1.1 Serious illness, injury or death of a USAR team member in an austere environment;
- 1.2.1.2 Adverse outcomes affecting the USAR teams ability to function, potentially leading to costly early demobilisation;
- 1.2.1.3 Emergency medical evacuation which disrupts USAR operations;
- 1.2.1.4 Adverse impact on the already stretched local health infrastructure.
- 1.2.2 The USAR Medical Director should participate in the development of such a policy. In the context of Medical Guidelines, the USAR Medical Director is the individual tasked with establishing policy and procedure, has the overall clinical primacy and is responsible for ensuring the medical component of a USAR team is in a constant state of mission readiness.
- 1.3 Inoculations
  - 1.3.1 The sponsoring agency should develop a vaccination policy for all USAR team members in collaboration with the USAR Medical Director. Accurate records of all inoculations and boosters (as may be required) should be maintained for all USAR team members. The World Health Organisation or local travel health authority can provide guidance on vaccinations requirements.
- 2. Logistics - Medical
  - 2.1 The USAR team Logistics officers are responsible for the complete logistical support for the USAR team. The medical component of a USAR team is however required to work closely with the USAR Logistics officers to ensure the medical cache is in a constant state of mission readiness.
  - 2.2 The medical cache is a comprehensive composition of equipment and consumables that will enable the medical component of a USAR team to carry out its tasks and capabilities (Section 1.4) from mobilisation to demobilisation.
  - 2.3 Due to the specialised nature of the medical cache, it is recommended that one of the members of the medical component

of a USAR team be assigned the responsibility of maintaining the medical cache in conjunction with the USAR logistics officer.

- 2.4 The medical components of the USAR team cache should be clearly documented and categorized in a data base to facilitate easy maintenance of items. It is recommended that the data base include expiration dates of all relevant items and this should be deployed with the team into the field to assist with cache management and facilitate border crossing. To further aid in border crossing, USAR medical members should carry with them documentation to support the right to clinical practice (e.g., copy of professional qualifications).
- 2.5 The medical cache documentation should include:
  - 2.5.1 Boxes clearly identifiable as containing medical equipment;
  - 2.5.2 Equipment and consumable inventory manifests;
  - 2.5.3 Individual box as well as overall USAR medical equipment cache weight;
  - 2.5.4 Packing plan (ensures items most likely required in the initial stages are immediately accessible e.g., reconnaissance medical equipment);
- 2.6 The cache should be organized (boxed/contained) to facilitate different medical operations. Important considerations are provided below:
  - 2.6.1 All USAR team members should undergo a pre-deployment medical screening process. The equipment required for this pre-deployment screening might not form part of the deployable medical cache. The pre-deployment medical equipment should be packed and stored in a clearly labelled container with an attached inventory list and should be available at the designated point/s of departure.
  - 2.6.2 The medical component of a USAR team has a responsibility to provide the full range of emergency care within its capability to the USAR team during transit to and from the disaster site. Therefore the USAR team medical personnel should have access to the relevant medical equipment during transit to enable them to render

medical care, if required. If the USAR team is going to be split up at any stage during transit, the USAR team medical personnel and medical equipment should also be split to ensure there is constant medical cover for all USAR team members during transit. It is recommended that a purpose specific transit medical cache be established.

2.6.3 The BoO Medical Station (BMS) should be established early during the set up of the BoO. The BMS serves as the medical facility for the USAR team and should provide the following:

2.6.3.1 Facility to provide continuous clinical care as may be required;

2.6.3.2 Appropriate shelter from the prevailing weather;

2.6.3.3 The following concepts should be considered for the BMS:

2.6.3.3.1 Identification as the BMS;

2.6.3.3.2 Private area to conduct medical examinations;

2.6.3.3.3 Medical treatment area;

2.6.3.3.4 Isolation area;

2.6.3.3.5 Access to equipment and medications;

2.6.3.3.6 Access and egress for patients;

2.6.3.3.7 Adequate storage facilities for the medical cache;

2.6.3.3.8 Power supply and lighting;

2.6.3.3.9 Heating capabilities (as required);

2.6.3.3.10 Refrigeration capability (as determined by medications);

2.6.3.3.11 Medical waste management facilities.

2.6.4 USAR Reconnaissance

2.6.4.1 USAR team medical personnel should form part of the USAR Reconnaissance Team and are required to be able to provide medical care, primarily to the USAR team, during reconnaissance operations. The equipment cache should be packed in such a manner that the medic assigned to the reconnaissance team can rapidly access the equipment required for reconnaissance on arrival at the disaster site.

2.6.5 Work-sites

- 2.6.5.1 A dedicated cache of medical equipment and consumables is required to support medical operations at each work site and should include relevant equipment to provide continuous emergency medical care, spinal immobilisation and extrication as described in Section 1.4.2.
- 2.6.5.2 Due to the nature of the work environment, a USAR medical team member may be required to provide emergency care in confined space environments. A medical pack should be available for use during confined space operations. In addition, the medical team may select to establish a more robust capability that can be carried forward once a victim(s) have been identified (e.g. site box concept).
- 2.6.6 Cache Labelling
  - 2.6.6.1 All USAR Medical Cache items should be packed and transported in containers clearly marked as USAR Medical.
  - 2.6.6.2 It is recommended that all separate containers should be externally labelled with the following information:
    - 2.6.6.2.1 Identified as medical cache (e.g., colour; symbol);
    - 2.6.6.2.2 List of contents;
    - 2.6.6.2.3 Container weight;
    - 2.6.6.2.4 Container value; this is of particular relevance for customs procedures.
- 3. USAR Medical Composition
  - 3.1 The medical component of the USAR team should be composed of medical professionals that are able to provide the full list of capabilities identified in F11.2 point 5. at each work site where the team is engaged as well as in the BoO. The number of medical personnel required will vary according to the teams INSARAG Classification.
  - 3.2 The medical component of the USAR team is required to have sufficient personnel, equipment and medical consumables to:
    - 3.2.1 Maintain continuous medical care for team members and victims encountered during USAR operations;

- 3.2.2 Provide simultaneous immediate emergency medical care at work sites and at the BoO as determined by the USAR teams classification;
- 3.2.3 Provide necessary veterinary care to the search dogs in conjunction with their handlers as required;
- 3.2.4 Maintain a medical management capability.

#### **F11.4 Mobilisation**

- 1. Activation - Management Medical
  - 1.1 Ensure deploying USAR medical personnel have:
    - 1.1.1 Passport;
    - 1.1.2 Personal medication;
    - 1.1.3 Inoculation Record;
    - 1.1.4 Personal issue equipment;
    - 1.1.5 Documentation to support right to clinical practise;
    - 1.1.6 Issued name and number contact list;
  - 1.2 Assign USAR medical personnel tasks in conjunction with the USAR Team Leader and record the staff allocation. Tasking should include:
    - 1.2.1 Transit assignments;
    - 1.2.2 BMS setup;
    - 1.2.3 USAR reconnaissance allocation;
    - 1.2.4 Rescue group allocation;
  - 1.3 Conduct remote information gathering to include:
    - 1.3.1 Any prevailing endemic medical situations (e.g., prevalence of HIV/AIDS, rabies, etc);
    - 1.3.2 Determine need for country-specific prophylaxis (e.g., Malaria);
    - 1.3.3 Unusual or site specific medical conditions and appropriate precautions (e.g., vectors);
    - 1.3.4 Altitude and or extreme weather considerations;
    - 1.3.5 Local health and medical infrastructure (include veterinary facilities);
    - 1.3.6 Medical Evacuation Plan (as known at the time);



- 1.3.6.1 Evacuation insurance 24/7 contact telephone number and policy number as appropriate;
- 1.3.6.2 Review the emergency evacuation plans for USAR team members;
- 1.3.7 Provide a health and welfare briefing to the USAR team;
- 1.3.8 Review USAR team policy for dealing with Injury on Duty (IOD) or death of a USAR team member during deployment;
- 1.3.9 Supervise the accountability and security of the controlled drugs in conjunction with the Logistics officer;
- 1.3.10 Initiate Medical Incident Log (MIL);
- 1.3.11 Coordinate with the designated personnel responsible for HAZMAT and safety on known incident hazards;
- 1.4 Medical Screening Pre-deployment
  - 1.4.1 The purpose of the medical screening process prior to deployment is to identify any medical issues that may jeopardise an individual's ability to perform in the field (and hence place the team at risk of a missing staff member) or that may jeopardise the rest of the team (e.g. through infection risk, etc). Therefore, all USAR team members should be required to undergo pre-deployment medical screening which is supervised by the USAR Medical Manager. (The USAR Medical Manager is the individual tasked with the responsibility of managing the deployed USAR medical component working in close conjunction with the USAR Team Leader. This individual may also be the USAR Medical Director, however this may not always be so.) The USAR Medical Manager should coordinate with the USAR Team Leader on any matters arising during the screening process that may adversely affect an individual's ability to deploy with the USAR team.
  - 1.4.2 Ideally, to ensure this process is entirely objective, the pre-deployment medical screening should be conducted by duly authorised medical personnel who will not be deployed on the mission.

- 1.4.3 The screening process should include a health examination of the search dogs as well as a review of the required international search dog documentation by a suitably qualified individual.
- 1.4.4 As a minimum, it is recommended that the pre-deployment medical screening process include the following:
  - 1.4.4.1 Review of the team members' medical records (if available);
  - 1.4.4.2 Medical Interview focusing on:
    - 1.4.4.2.1 Any recent/current illness;
    - 1.4.4.2.2 Any restricted duty assignments and reasons;
    - 1.4.4.2.3 Recent hospital admission;
    - 1.4.4.2.4 Any recent/current stressors (e.g., divorce, family illness, chronic illness);
  - 1.4.4.3 Current medications:
    - 1.4.4.3.1 Review current medications;
    - 1.4.4.3.2 Ensure team member has sufficient personal prescribed medication;
    - 1.4.4.3.3 Review and document allergies;
  - 1.4.4.4 Review of Inoculation Record as per USAR team policy guidelines;
  - 1.4.4.5 Record basic vital signs as per USAR team policy;
- 1.4.5 During the pre-deployment medical screening process it may come to light that a USAR team member is not suitable for deployment based on medical grounds. Under these circumstances the USAR Medical Manager should discuss the situation with the USAR Team Leader and determine the appropriate course of action in accordance with the USAR team policy.

## 2. Activation - Operations Medical

- 2.1 During the Activation Phase it is the responsibility of USAR medical personnel to:
  - 2.1.1 Report to the designated assembly point within the prescribed time period;
  - 2.1.2 Participate in all relevant pre-deployment briefings;

- 2.1.3 Receive a medical briefing and assignments from the USAR Medical Manager;
  - 2.1.4 Assist USAR team Logistics Officer with the medical cache as required;
  - 2.1.5 Inspect assigned transit medical cache;
  - 2.1.6 Ensure accountability and security of the controlled drugs with the USAR Medical Manager and Logistics officer;
  - 2.1.7 Assist with the loading and packing of the equipment cache, ensuring that the reconnaissance medical cache is easily accessible on arrival at the affected area;
  - 2.1.8 Begin health monitoring of the USAR team members, including the search dogs.
3. In-Transit - Management Medical
- 3.1 This section applies to transit to and from the affected country.
  - 3.2 The USAR Medical Manager has a responsibility to monitor physical readiness through adequate hydration, nutrition and rest. Furthermore, the USAR Medical Manager should:
    - 3.2.1 Review the contingency plan for evacuation during transit;
    - 3.2.2 Review latest incident information as available;
    - 3.2.3 If the USAR team is going to be split up during transit, assign USAR medical personnel and equipment to each group to ensure a constant USAR medical presence for each group of the USAR team;
4. In-Transit – Logistics Medical
- 4.1 The USAR medical personnel are to ensure:
    - 4.1.1 The ongoing security of the controlled drugs during transit;
    - 4.1.2 Monitor medications that require refrigeration during transit (if required);
    - 4.1.3 Clarify the responsibility sharing between medical and logistical staff regarding BoO and on site hygiene;
    - 4.1.4 Review the load out/in order for the medical equipment cache.

## F11.5 Operations

1. Medical Management
  - 1.1 The USAR Medical Manager responsibilities can be divided into *External Responsibilities and Internal Responsibilities*. External responsibilities are coordinated in conjunction with the USAR Team Leader and deal with the interaction of the USAR Medical Manager with other external stakeholders concerned with health related issues. Internal Responsibilities deals with the USAR Medical Manager responsibilities within the USAR team.
    - 1.2 External Responsibilities include:
      - 1.2.1 Identify and prioritise external points of contact (e.g., LEMA; or other relevant medical coordinators) in charge and determine:
        - 1.2.1.1 Local medical command structure;
        - 1.2.1.2 Availability of local medical resources (including veterinary) to support USAR medical activities;
        - 1.2.1.3 Availability of international medical resources (e.g., field hospitals);
        - 1.2.1.4 Casualty handover procedure;
        - 1.2.1.5 Casualty transport capabilities;
        - 1.2.1.6 Fatality management procedure including Disaster Victim Identification (DVI) procedures as determined by LEMA;
        - 1.2.1.7 Provide a briefing on the USAR teams medical capabilities to external stakeholders as may be required;
      - 1.2.2 Maintain regular contact with local health authorities;
      - 1.2.3 Assign a Medical Liaison officer to participate in all relevant external meetings and briefings (e.g., OSOCC; health cluster);
      - 1.2.4 Conduct capacity assessments of available local and international medical resources as appropriate in order to plan for medical care of team members and patients if required;
      - 1.2.5 Provide medical input and or support that will facilitate the affected country to make the transition from the rescue phase to the early recovery phase.
    - 1.3 Internal Responsibilities include:

- 1.3.1 Develop a mission specific Medical Action Plan (MAP) that is updated regularly. The MAP should include:
  - 1.3.1.1 Review medical mission priorities as required;
  - 1.3.1.2 Collaboration with local and international medical and health infrastructure;
  - 1.3.1.3 Resource limitations;
  - 1.3.1.4 Re-supply constraints;
  - 1.3.1.5 Deceased victim management, including DVI requirements;
  - 1.3.1.6 Local health concerns:
    - 1.3.1.6.1 Infectious diseases;
    - 1.3.1.6.2 Environmental considerations;
    - 1.3.1.6.3 Hazardous materials;
    - 1.3.1.6.4 Local victim handover procedure;
    - 1.3.1.6.5 Cultural considerations;
    - 1.3.1.6.6 Emergency evacuation plan;
- 1.3.2 Participate in daily USAR team briefings and conduct the daily medical briefing. Include concepts such as:
  - 1.3.2.1 Medical status report;
  - 1.3.2.2 Health and Safety issues as reflected in the MAP;
  - 1.3.2.3 Camp health and hygiene;
  - 1.3.2.4 Address rumours as they relate to the health of team;
- 1.3.3 Provide input to the USAR Team Leader regarding health related matters that may have an impact on the USAR team;
- 1.3.4 Provide ongoing clinical care as required;
- 1.3.5 Evaluate medical evacuation procedure;
- 1.3.6 Structure team staffing to:
  - 1.3.6.1 Ensure medical presence in the BoO at all times;
  - 1.3.6.2 Ensure USAR medical personnel accompany their assigned rescue groups during operations;
  - 1.3.6.3 Ensure adequate rest periods between shifts;
- 1.3.7 Supervise the monitoring of USAR team members for:
  - 1.3.7.1 Stress-related health problems and implement stress management techniques as appropriate;

- 1.3.7.2 Fatigue;
- 1.3.7.3 General state of health – monitor trends (e.g., diarrhoea);
- 1.3.7.4 Hydration status;
- 1.3.7.5 Nutrition status;
- 1.3.8 Coordinate with the personnel responsible for HAZMAT and safety issues regarding:
  - 1.3.8.1 The potential for hazardous materials contamination or other exposures (and documentation of potential exposures per home team protocol);
  - 1.3.8.2 Decontamination information for various contaminants or exposures;
  - 1.3.8.3 Available treatment options for hazardous materials exposures;
- 1.3.9 Monitor any USAR team members hospitalised at local healthcare facilities as required;
- 1.3.10 Ensure the implementation of the isolation procedure for any USAR team members suffering a potentially contagious condition that may jeopardise other members of the team;
- 1.3.11 Facilitate the adherence to safe BoO health and hygiene practices;
  - 1.3.11.1 Food storage and preparation;
  - 1.3.11.2 Water;
  - 1.3.11.3 Sanitation.
  
- 2. Medical Logistics
  - 2.1 During medical operations the following considerations apply to the medical cache:
    - 2.1.1 Undertake daily maintenance of the BMS to ensure it is clean, tidy and functional;
    - 2.1.2 Ensure accountability and security of the controlled drugs with the USAR Medical Manager and Logistics officer;
    - 2.1.3 Monitor medications that require refrigeration as required;
    - 2.1.4 Record and update daily the medical consumables used;
    - 2.1.5 Record any equipment faults, damages or losses;
    - 2.1.6 Advise USAR Medical Manager of any equipment concerns or low-stock items;

- 2.1.7 In conjunction with the Logistics Officer develop a re-supply plan as required.
  
- 3. Medical Operations
  - 3.1 BoO
    - 3.1.1 Implement a daily health and welfare check for all USAR team members;
    - 3.1.2 Ensure compliance with safety and hygiene protocols;
    - 3.1.3 Provide continuous medical care to USAR team members, including search dogs in collaboration with their handlers, and complete documentation as required;
    - 3.1.4 Ensure appropriate medical waste management as per team and affected country protocol;
  - 3.2 Reconnaissance
    - 3.2.1 A USAR medical member should be included in the USAR Reconnaissance team to provide emergency medical care to USAR team members as may be required. During the reconnaissance, the USAR medical member should determine if possible:
      - 3.2.1.1 Capabilities of available local and international medical resources;
      - 3.2.1.2 Assess victim handover options;
      - 3.2.1.3 Assess victim transport options;
      - 3.2.1.4 Assess deceased management options;
      - 3.2.1.5 Assess available veterinary facilities;
      - 3.2.1.6 Submit a medical reconnaissance report to the USAR Medical Manager;
  - 3.3 Work Sites
    - 3.3.1 The INSARAG Guidelines require a Medium Team to work at one work site and a Heavy Team to work at two work sites simultaneously. For the purposes of this document, a work site is considered to be the area assigned to a rescue group which is supported by a single equipment (including medical) cache.

- 3.3.2 Member/s of the USAR medical component capable of providing the clinical capabilities listed in Section 1.4.2 are required to be assigned to rescue groups during their site operations;
- 3.3.3 Provide medical management and oversight of the assigned work site;
- 3.3.4 Monitor health and welfare of the rescue group during site operations;
- 3.3.5 Set up and operate a medical post at the work site as required;
- 3.3.6 Establish a medical evacuation plan for the work site;
- 3.3.7 Monitor victims for potential negative impacts from rescue operations (e.g., dust, noise, falling debris) and coordinate mitigation measures with rescue personnel as required;
- 3.3.8 Ensure Personal Protective Equipment (PPE) (e.g., eye, hearing and respiratory protection) is applied to patients during the disentanglement and extrication process;
- 3.3.9 Ensure accountability and security of the drugs on site;
- 3.3.10 Safeguard the medical equipment cache and restrict access to authorised personnel only.

## **F11.6 Demobilisation**

- 1. Medical Management
  - 1.1 The USAR Medical Manager is required to:
    - 1.1.1 Attend the USAR team demobilisation briefings;
    - 1.1.2 Medical cache donations:
      - 1.1.2.1 Identify medical equipment and appropriate consumables to be donated, if any;
      - 1.1.2.2 Identify an appropriate recipient for donated items (e.g., local health authorities, other international organisations);
      - 1.1.2.3 Communicate with Logistics officer and USAR Team leader regarding donated medical items as it pertains to amendments to the medical cache inventory;
  - 1.2 Coordinate demobilisation with the local relevant health authorities (e.g., through OSOCC);



- 1.3 Supervise the accountability and security of the controlled drugs with the USAR medical personnel and the Logistics officer;
  - 1.4 Coordinate the repatriation of any USAR team members' hospitalised whilst on deployment. If the team member cannot be repatriated with the rest of the team, another team member/s should be assigned to accompany them until such time as they can be repatriated;
  - 1.5 Prior to departure from the affected country, consider conducting a health and welfare check;
  - 1.6 Preparation of initial Medical After Action Report (AAR).
- 
2. Medical Logistics
  - 2.1 During the demobilisation phase, the USAR medical personnel are required to carry out the following tasks:
    - 2.1.1 Break down the BoO Medical Station;
    - 2.1.2 Perform basic decontamination, packing and loading of the medical cache;
    - 2.1.3 Account for and document all medical cache equipment and consumables, adjusted accordingly for any donations;
    - 2.1.4 Pack items requiring refrigeration appropriately for transport;
    - 2.1.5 Pack up the medical cache and ensure it is ready for loading;
    - 2.1.6 Ensure accountability and security of the controlled drugs with the Logistics officer;
    - 2.1.7 Ensure medical equipment is available for transit.

### **F11.7 Post Mission**

1. Medical Management
  - 1.1 The USAR Medical Manager is required to:
    - 1.1.1 Attend USAR Post Mission debriefing;
    - 1.1.2 Coordinate with USAR Team Leader to facilitate immediate medical follow up upon return to home country (including mental health) as required;

- 1.1.3 Report on the operational readiness of the USAR medical component of the team and its equipment cache once restored;
- 1.1.4 Complete and submit all paperwork as required by the USAR team policy;
- 1.1.5 Complete medical contribution to the AAR as required by USAR team policy;
  
2. Medical Logistics
  - 2.1 Following a mission, the medical cache should be immediately replenished and or maintained so as to ensure a constant state of operational readiness.
  - 2.2 The rehabilitation of the USAR medical cache should take place within the timeline prescribed by USAR team policy;
  - 2.3 The USAR Team leader should be notified as soon as this has been achieved.

## **F12 Work-Site Triage and Structural Evaluation**

### **F12.1 Introduction**

1. WORK-SITE TRIAGE is the process of prioritising work-sites in order to save as many lives as possible. In some cases the order of priority is obvious from the number of people missing in each building. When the order of priority is *not* obvious a systematic procedure of categorizing work-sites based on an estimation of voids, an evaluation of stability and available information on missing persons can be applied to facilitate the decision-making process.
2. STRUCTURAL EVALUATION: Before entering a collapsed structure a USAR team will evaluate the condition of the structure for operational decisions and safety considerations.
3. Using standardized methods for sharing structural information on collapsed structures increases interoperability between USAR teams.

### **F12.2 Preparedness**

1. Selected members of the USAR team should be trained 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;
- 1.6 Reporting procedures regarding structural issues.

### **F12.3 Mobilisation**

1. The team management ensures that information is collected on:
  - 1.1 The cause of building collapse;
  - 1.2 Local construction, including:
    - 1.2.1 Building material and standards;
    - 1.2.2 Common architecture;
  - 1.3 Prior earthquakes in the region, structural performance and collapse patterns.

### **F12.4 Operations**

1. A work-site triage is based on the following five steps:
  - 1.1. ZONE: Determine the zone that the triage should cover. Mobility of the assessment team performing the triage is a determining factor;
  - 1.2. COLLAPSE: Identify as potential work-sites all totally and partially collapsed structures within the designated zone;
  - 1.3. INFORMATION: Collect information from locals that may eliminate potential work-sites or affect the work-site triage in some way, such as available information on missing persons, structural information (use, layout, size, material, construction type, etc.) and prior search and rescue attempts.
  - 1.4. CATEGORIZE: Determine the category of each potential work-site. Triage Categories and Triage Factors are listed below.
  - 1.5. PRIORITIZE: Based on the missing-persons information, triage category and access to priority voids determine the order of priority for the work-sites.
  
2. Many other factors may eventually affect the final order of priority, such as:

- 2.1. Lack of necessary transport or access to site;
- 2.2. Lack of specialised equipment to mitigate hazards;
- 2.3. Security and cultural factors;
- 2.4. Age of victims (for example a school vs. an old people’s home);
- 2.5. Priorities set by LEMA;
- 2.6. Aftershocks.

3. Reporting

- 3.1 The assessment team immediately reports any information they collect on known live victims to the team management to mobilize search and rescue units to the site as quickly as possible.
- 3.2 The assessment team reports their triage results to the team management.
- 3.3 The final triage list is compiled by the team management and reported to the OSOCC, along with information on the categories, missing persons and other important information regarding each work-site.

4. Triage Categories from A to H.

	<b>Victim Information</b>	<b>Void Size</b>	<b>Stability Level</b>
A.	Live victims *		Stable or unstable
B.	Unknown victims **	Big Voids	Stable
C.	Unknown victims	Big Voids	Unstable
D.	Unknown victims	Small Voids	Stable
E.	Unknown victims	Small Voids	Unstable
F.	Live victims ***		Extreme Instability
G.	Unknown victims		Extreme Instability
H.	No live victims		

4.1 \* “Live victims” means that the assessment team knows that there are people alive in the collapsed structure.

4.2 \*\* “Unknown victims” means that people are missing, but the assessment team does not know whether these people are alive or even in the structure.

4.3 \*\*\* Category F is only used if and when an assessment team determines the required stabilization measures needed are beyond the capacity of the team. The team shall report this immediately to the OSOCC/LEMA to dispatch more resources to the area.

5. Triage Table.

Live victims	A	A	F
Unknown victims <i>and</i> Big voids	B	C	G
Unknown victims <i>and</i> Small voids	D	E	G
No live victims: H	Stable	Unstable	Extreme instability

6. Triage Factors.

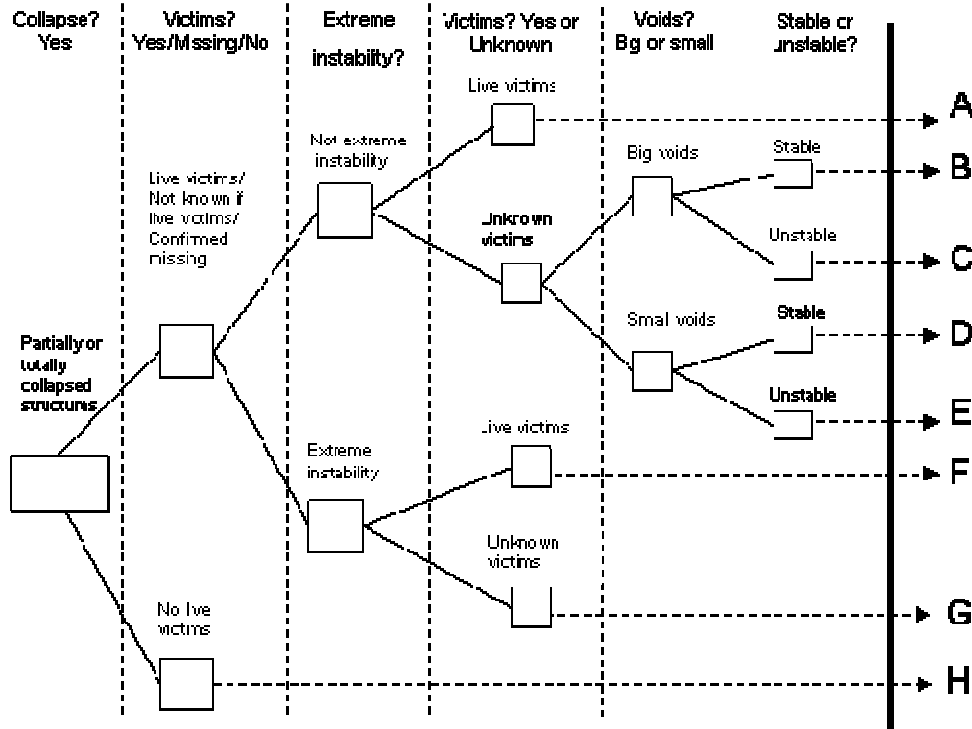
TRIAGE FACTOR	DEFINITION
<b>Big Void</b>	A <i>big void</i> is big enough for a person to crawl. The chances of survival for a victim are greater in big voids than small voids. “Big” is a relative term, i.e., a big void for a child will be considerably smaller than a big void for an adult.
<b>Small Void</b>	A <i>small void</i> is where a person can hardly move and has to lie more or less still while waiting for help. In small voids, the chances of injury are higher as people trapped inside have less space to avoid falling objects and collapsing structural elements.
<b>Stable</b>	In this context <i>stable</i> refers to a collapsed structure where specific safety shoring prior to rescue operations is not needed (or not possible). The operations focus directly on search and rescue.
<b>Unstable</b>	An <i>unstable</i> structure needs to be stabilised by shoring or other measures before direct search and rescue operations can start. This will <i>delay</i> the operation.
<b>Extreme Instability</b>	This term is used when a USAR team decides <i>not</i> to operate due to lack of the team’s ability to stabilize the structure and operations

	are <i>postponed</i> until additional resources are brought to the site.
<b>Access</b>	Access to voids is judged by the <i>time</i> estimated to reach the victims or priority voids. The estimation is based on the difficulty of the operations, i.e. building material, equipment used, size of team, amount of work needed to penetrate the building, etc.

6.1 Note: The objective of a triage process is to evaluate the triage factors in order to compare collapsed structures and decide the order of priority. The key to triage is consistency in the comparison of triage factors (bigger or smaller, less or more stable, less or more time), not the exact size of voids, level of shoring or amount of time.

7. Triage Tree.

7.1. The Triage Tree demonstrates a decision-making process for determining a Triage Category



8. A structural evaluation of a collapsed structure will include an evaluation of the following ten factors:

- 1) THE ORIGINAL BUILDING
  - 1.1 Use and occupancy;
  - 1.2 Footprint and height;
  - 1.3 Architecture and interior layout;
  - 1.4 Building material and type of construction;
- 2) THE COLLAPSE
  - 2.1 Why did it fall down?
  - 2.2 How did it fall down?
  - 2.3 What stopped the fall?
  - 2.4 Distribution of rubble;
- 3) LOCAL FAILURES
  - 3.1 Damage to columns;
  - 3.2 Damage to load-bearing walls;
  - 3.3 Damage to beams;
  - 3.4 Damage to floors;
  - 3.5 Damage to connections;
- 4) POSSIBLE VOIDS
  - 4.1 Voids created by structural elements and the pattern of collapse;
  - 4.2 Voids created by building content;
  - 4.3 Estimation of size of voids for chances of survival;
- 5) STRUCTURAL FACTORS AFFECTING OPERATIONAL PRIORITIES, e.g.
  - 5.1 Possible access route to priority voids;
  - 5.2 Mitigation of structural hazards;
  - 5.3 Entrance and egress possibilities;
- 6) STRUCTURAL FACTORS AFFECTING SEARCH ACTIVITIES, e.g.
  - 6.1 Where to enter and exit;
  - 6.2 Search and escape routes;
- 7) STRUCTURAL FACTORS AFFECTING RESCUE ACTIVITIES, e.g.
  - 7.1 Where to enter and exit;
  - 7.2 Rescue and escape routes;
- 8) SHORING

- 8.1 For safe penetration into the structure;
- 8.2 To mitigate the risk of settlement and collapse;
- 9) MONITORING AND WARNING SYSTEMS
  - 9.1 To monitor slow-moving settlement of rubble;
  - 9.2 To gain an understanding of possible further structural collapse;
- 10) EVACUATION PLAN
  - 10.1 Signalling procedures;
  - 10.2 Evacuation routes;
  - 10.3 Safe havens;
  - 10.4 Safe assembly locations;

### **F12.5 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.

## **F13 USAR Team Marking and Signalling**

### **F13.1 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.

### **F13.2 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).

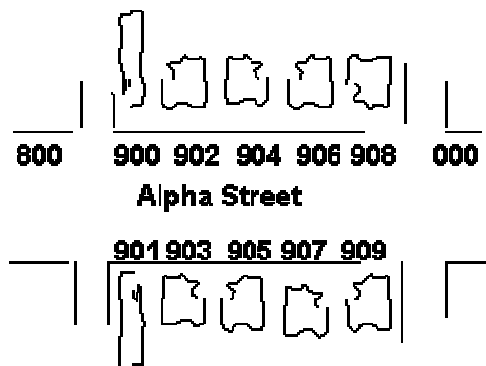


- 2.1 Management position(s) – white;
- 2.2 Medical position(s) - red cross/crescent;
- 2.3 Safety/security position(s) – orange.
- 3. Vehicles must be marked with team name (flag, magnetic sign, etc).

**F13.3 General Area Marking**

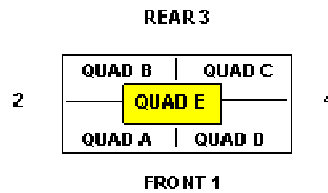
- 1. Orange spray paint is to be used for all markings.
- 2. Assigned area or work sites are to be identified individually:
  - 2.1 Address or physical location;
  - 2.2 Landmark or code name (e.g. sugar factory building 1);
  - 2.3 Mapping coordinates or GPS;
  - 2.4 If no maps are available, sketch maps are to be produced and submitted to the OSOCC \ LEMA;
  - 2.5 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**



**F13.4 Structure Orientation**

- 1. Structure orientation includes both an exterior and interior identification:
  - 1.1 Exterior Identification: 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).



1.2 Interior Identification:

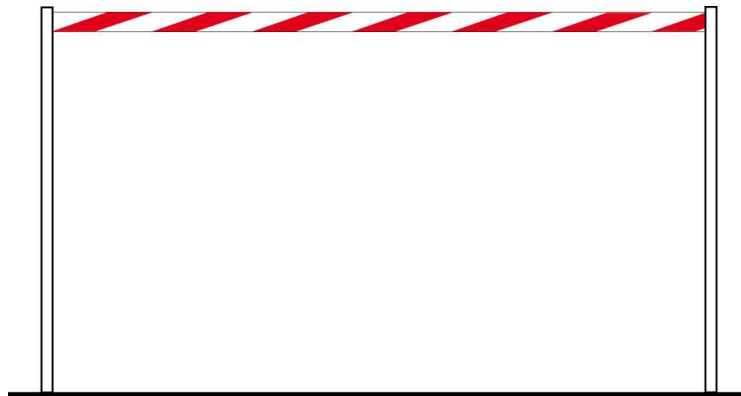
- 1.2.1 The interior of the structure will be divided into QUADRANTS. The quadrants shall be identified ALPHABETICALLY in a clockwise manner starting at the corner where Side 1 (FRONT) and 2 meet. Quadrant E (central lobby, elevators, staircases, etc) applies to buildings with multiple storeys. (See 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 ground level floor would be designated the “ground floor” and, moving upward the next floor would be “Floor 1”, etc. Conversely, the first floor below ground 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

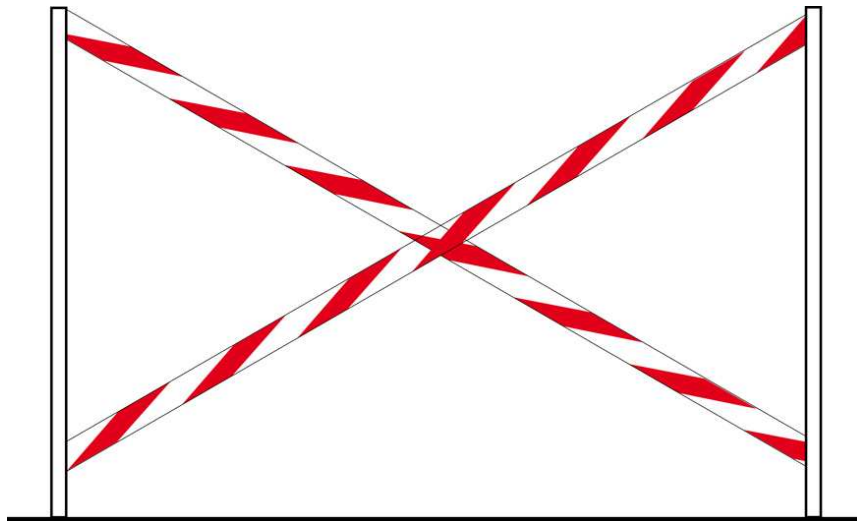
**F13.5 Cordon Markings**

- 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



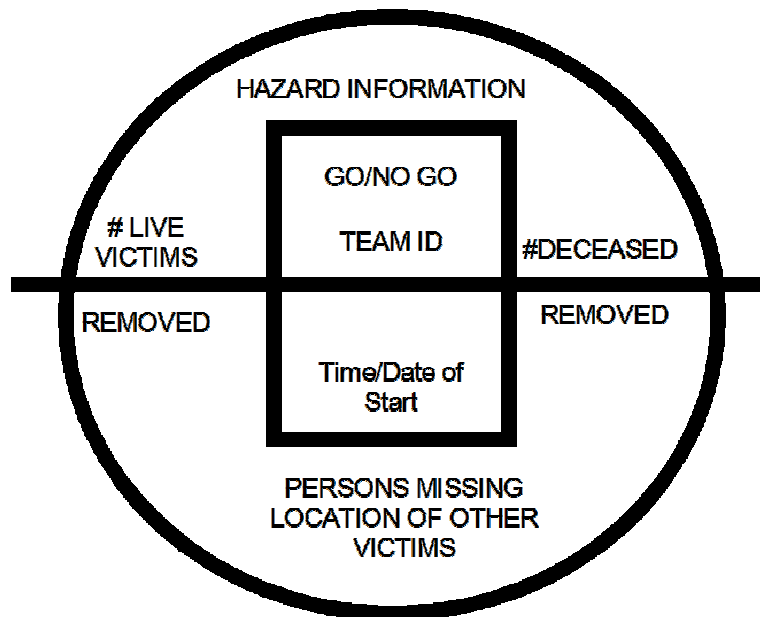
Hazard Zone



### F13.6 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 rescued (left);
  - 4.4 Dead victims extricated (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.



### F13.7 Signalling

1. Effective emergency signalling is essential for 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)

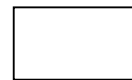
### F13.8 Sample symbols

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

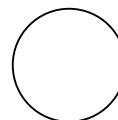
Zones - irregular shapes



Functions– box




Facilities– circle



Reference point – triangle



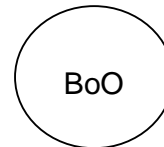
Time denoted (with arrow pointing to activity site, local time)

22/11 0700  
hrs 

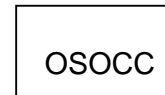
Command Post



USAR Base of Ops



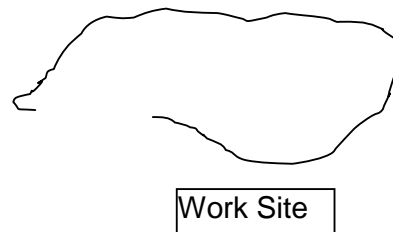
OSOCC



Reception/Departure Centre

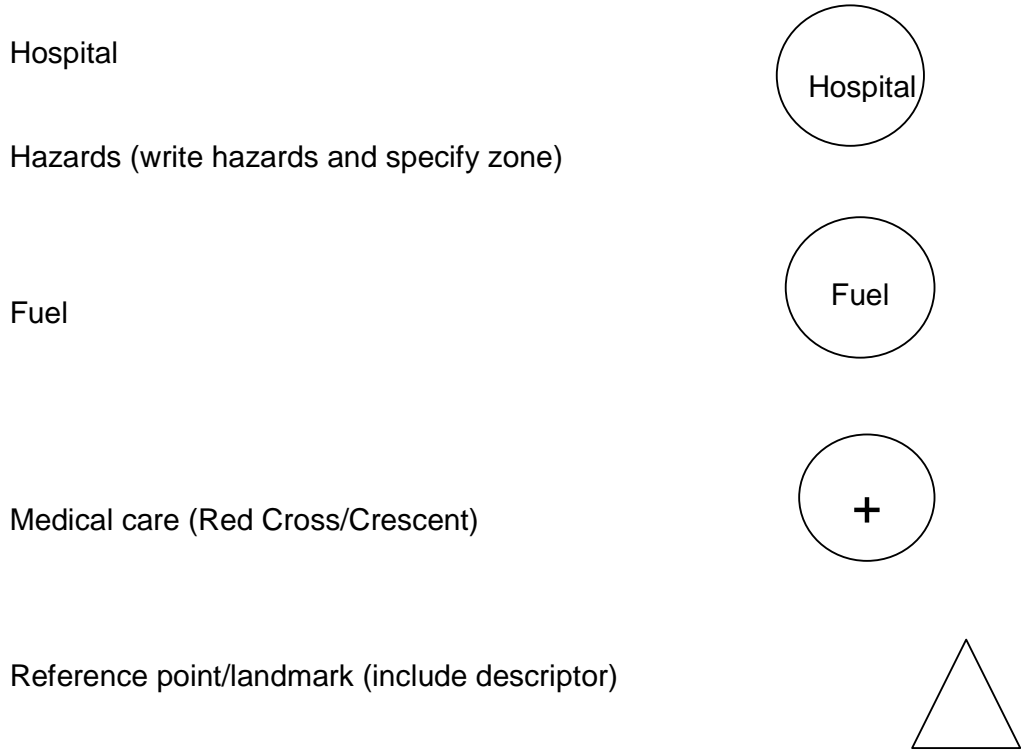


Work Site



Airport





## **F14 Hazardous Materials Operations**

### **F14.1 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 and report the situation to the OSOCC. Teams locating a HAZMAT source must cordon the area and add a marking to alert other rescuers of the danger.

### **F14.2 Strategic Considerations**

1. Medium and Heavy international USAR teams need to possess the inherent knowledge to recognize a hazardous environment, thus minimising the risk of harm, injury or death to its members and the affected population. It is also expected to be able to communicate its findings regarding contamination to

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.

#### **F14.3 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.

#### **F14.4 Decision Process Considerations**

1. Conduct 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.

#### **F14.5 Other Considerations**

1. Condition of voids – If the hazard can be easily isolated or mitigated and this is carried out, 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:
  1. Time required to complete the assignment;
  2. Protection and limitations of available PPE;
  3. Results of the risk benefit analysis;
  4. Resource status;
  5. Security and safety considerations.

#### **F14.6 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.

## **G ESTABLISHING A NATIONAL URBAN SEARCH AND RESCUE CAPACITY**

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

(United Nations General Assembly Resolution 57/150 of 16 December 2002 on “*Strengthening the effectiveness and coordination of international urban search and rescue assistance*”)

### **G1 USAR Response Framework**

1. Urban Search and Rescue (USAR), as defined by the INSARAG Guidelines, refers to the “processes used to safely remove entrapped victims from collapsed structures”. Typically these steps are employed following the structural collapse incidents caused by earthquakes, cyclones or terrorist activity; incidents of this sort are described as being caused by a sudden onset event
2. In order to understand the context in which this document has been developed, it is important that there is an understanding of the concept of continuous rescue at structural collapse incidents. This concept covers the chronological steps of rescue from passers-by rushing to assist in the immediate aftermath of a collapse and the response of the local emergency services in minutes. It continues with the arrival of regional or national rescue resources in hours through to the response of international rescue teams in the days after the event. Based on the chronological steps in a rescue response, the INSARAG Response Framework is shown in Figure 1.

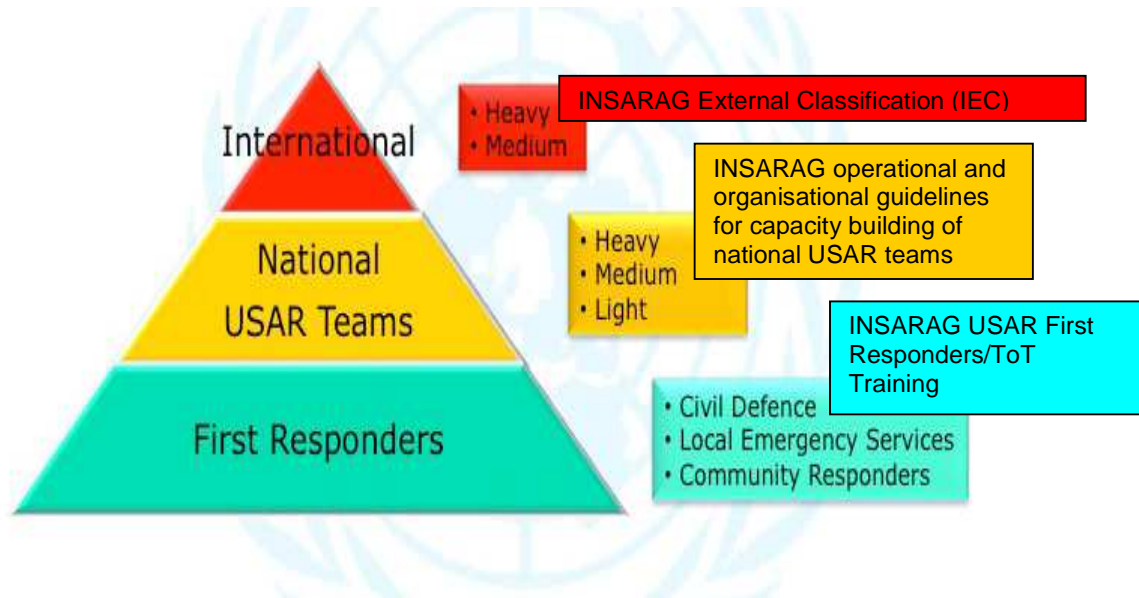


Figure 1: USAR Response Framework

3. The INSARAG Response Framework is a diagrammatic representation of all levels of response, starting with spontaneous community actions immediately following the disaster, which is supplemented initially by the local emergency services and then by national rescue teams. Finally, there is the response of international USAR teams, supporting national rescue efforts.
4. Each new level of response increases the rescue capability and overall capacity but has to integrate with and support the response already working at the disaster. In order to ensure inter-operability between the levels of response, it is vital that working practices, technical language and information is common and shared across the whole response framework. Adoption of the INSARAG Guidelines and more specifically Chapter G of the Guidelines would support ensuring this common and shared framework at all levels of response. Therefore, the USAR Response Framework can be used as a basis to establish principles and working practices that relate to all levels of operational preparedness, capacity building, training and capability assessment.

## G2 Capacity Building

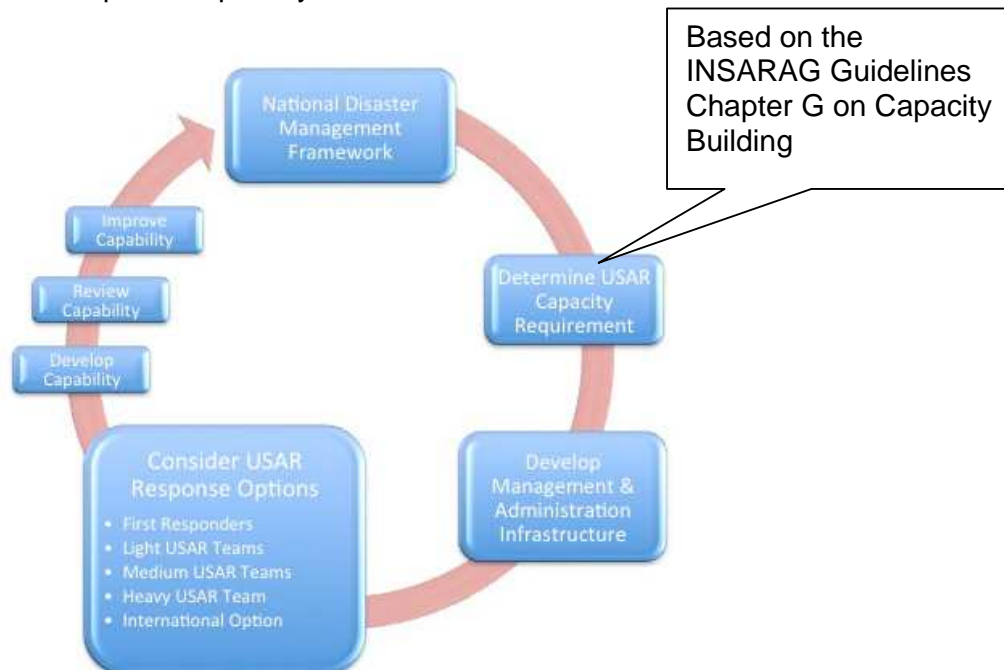
1. UN General Assembly Resolution 57/150 (16 December 2002) identifies that each country has the responsibility first and foremost to take care of the victims of natural disasters and other emergencies occurring on its territory. It has the

primary role in the initiation, organisation, coordination and implementation of humanitarian assistance within its territory. Therefore, it is essential that countries develop a robust disaster management framework based on a national assessment of risk.

2. The UNDAC ‘Disaster Response Preparedness Mission’ and INSARAG ‘USAR Capacity Building Assessment Mission’ are UN OCHA tools that are available to assist countries to analyse and assess the capability of their disaster management frameworks.
3. Whatever the mechanism of assessment, where deficiencies within a country’s national disaster management framework are identified, the need for capacity building to remedy such deficiencies will emerge. Capacity building is the process of identifying and supporting existing USAR resources or developing new capability through the creation of systems and processes, recruitment of suitable staff, the procurement of equipment, training of personnel and its integration into the existing political and management infrastructure sufficient to support and sustain the capability.
4. The principles of USAR capacity building that support the objectives of UN General Assembly Resolution 57/150 and the INSARAG Hyogo Declaration of 2010, include:
  - Encouraging capacity building at all levels and should be customised to meet the needs of the host community, which must be determined by a risk/vulnerability analysis.
  - Capacity building should cover all five components of USAR capability (search, rescue, medical, management and logistics) and can range from community-based first responders to the development of a “Heavy” USAR resource.
  - Countries should have the ability to effectively use their own capability and to integrate international assets into the national response.
5. To assist in the assessment of national USAR resources, INSARAG has formulated guidelines that can be used by national governments to determine the capacity and capability of their USAR resources (see G3).

6. Additionally, from a perspective of developing new USAR capability, the INSARAG Response Framework (G4 to G8) provides a basis for the sequence of this development process. It is recommended that countries should undertake USAR capacity building using the sequence described in Figure 2, the USAR Development Cycle.

- 6.1. Develop a robust national disaster management framework based on an assessment of risk.
- 6.2. Develop the management and administration infrastructure (G4) and consider the alternative response options. The alternative response options are:
  - Develop community-based first responder networks (G5).
  - Develop elements of these networks into USAR Teams at a 'Light' level (G6).
  - If required, develop Medium (G7) or Heavy (G8) USAR capability from the Light USAR Teams.
- 6.3. Undertake an assessment of their USAR capability (based on G3).
- 6.4. Review lessons learned from the assessment and continue to maintain and improve capability.



### G3 INSARAG Operational and Organisational Guidelines for Capacity Building of National USAR Teams

*“Therefore urges and highly recommends that building national, local and community capacity is critical for effective response to earthquakes, collapsed structure and other related emergencies in a rapidly urbanizing world, and welcomes the work undertaken by the INSARAG network to develop recommendations for operational and organisational guidelines for capacity building of national USAR teams, and encourage Member States to support such efforts”*

(INSARAG Hyogo Declaration paragraph no. 5, September 2010)

1. The INSARAG network is strongly encouraged to assist disaster prone countries in developing the capacity of their national USAR teams. In this context, the term “national USAR team” refers to a USAR team, which is employed at the national level but not encouraged to deploy internationally. This can be a governmental team or non-governmental team. INSARAG has utilized the experience gained both in the IEC process as well as in existing capacity building programs of its members to develop recommended organisational and operational standards for national USAR teams in order to provide Member States with guidance for the development of national USAR capacity.
2. The guidance is meant to provide globally accepted standards for national USAR teams to develop an operational and organisational capacity. By promoting common standards for national USAR teams, the INSARAG network aims to provide guidance for capacity building efforts as well as enhance the interoperability of national USAR teams with international teams in major emergencies within their countries.
3. Furthermore, the recommended standards for national USAR teams provide a valuable tool to the INSARAG community to promote and disseminate the INSARAG guidelines and methodology to the vast majority of USAR teams worldwide that are for national use.
4. The organisational and operational guidelines for national USAR teams are developed as a guidance document for capacity building of national teams so that there are common operational standards around the world. Countries with INSARAG IEC classified international USAR teams are strongly encouraged to

assist the capacity building process in developing countries and provide guidance to other national teams in their own country.

5. Countries are encouraged to adopt (at the appropriate level) the INSARAG organisational and operational guidelines for capacity building of national USAR teams as a target achievement for its national USAR teams and to adopt appropriate processes for the confirmation of achievement of these standards.
6. The confirmation of achievement of the capabilities of a national USAR team is the responsibility of the national authorities of the concerned country.
7. When a national USAR team meets the target of the organisational and operational guidelines, the country is encouraged to inform the INSARAG Secretariat through its INSARAG national focal point. The INSARAG Secretariat will register this team as “nationally classified USAR team” at the level of light, medium or heavy in the USAR Directory.
8. If a Government wishes to ask for support in this process, it can contact the INSARAG Secretariat or the INSARAG Regional Group for further advice.
9. Any external confirmation is voluntary, optional and complementary to national processes and is not to be confused with the INSARAG IEC process. For a USAR team that is planned to deploy internationally, the INSARAG IEC process remains as the only classification system.



Any external confirmation of achievement of the operational and organizational guidelines is voluntary, optional and complementary to national processes. Governments can contact the INSARAG Secretariat or the INSARAG Regional Group for further advice.

Based on the INSARAG Guidelines Chapter G on Capacity Building

It is recommended to use the INSARAG operational and organisational guidelines for capacity building of national USAR teams as target achievement for this review process.

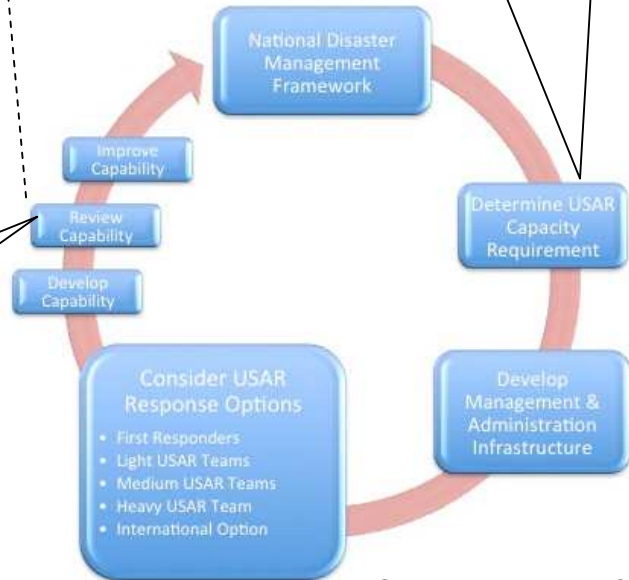


Figure 2: USAR Development Cycle

Countries with IEC classified USAR teams are encouraged to assist the USAR capacity development process in developing countries and for national teams in their countries. The INSARAG Secretariat or the INSARAG Regional Groups can facilitate the provision of this support.

**Refer to chapter G10 for the self assessment checklist of the “INSARAG Organisational and Operational Guidelines for Capacity Building of National USAR Teams”**

**G4 Developing a National USAR Management & Administration Infrastructure**

1. Once the appropriate Government officials (national, regional and/or local) have determined which level of USAR capability is needed (based on the



assessment of risk), it should adopt a legal platform and authority that encompasses the management and administration infrastructure of the proposed USAR capability. This can be achieved by the creation of a new organisation or the expansion of an existing organisation.

2. The new administration will need to develop both the administrative and financial management tools of the USAR capability. These documents will:
  - a) Define the policy and procedures.
  - b) Make provision for initial or 'start-up' funding for the preparation of USAR disaster response.
  - c) Make provision for on-going funding that should be sufficient to allow the USAR capability to maintain a high standard and condition of operational readiness.

The administrative and financial documents should also define:

- The duties and responsibilities of management and administrative positions
  - The organisational responsibilities and roles
  - The process through which the USAR capability will administer annual funding
  - The record management processes
  - How property is accounted for
  - How new members are selected
  - How members receive initial training
  - The on-going training required to allow members to remain operational
3. Organisations seeking to develop administrative and financial documentation can request support from the INSARAG Secretariat.
  4. Once an effective management and administration infrastructure is in place, the alternative response options need to be considered. Considerations include:
    - The approach selected should be based on both the likely rescues (number and degree of difficulty) required in the event of a disaster as well as the ability to procure appropriate equipment, recruit appropriate people and train them (initial and on-going).

- The majority of people rescued after a disaster are lightly trapped and therefore recoverable by the first responders and light teams that are available locally and on scene quickly.
- Unless more difficult and technical rescues are envisaged, there is no requirement to progress to another level and develop a more technically capable team.
- Structured teams with a medium or heavy capability are more expensive to develop and maintain, require higher levels of training and are not as quick to deploy due to their size (staff and equipment) comparing to the teams with light capability.
- It is far better to maintain a lower level capability in an effective and efficient manner, than to develop a larger capacity resource and not be able to maintain the required skill and equipment levels.
- Structured teams have the advantage over untrained spontaneous volunteers by providing for an organised rescue capability thus reducing the risk of injury or death to themselves and the victims.
- All structured USAR teams, irrespective of their capacity and operational involvement, should comprise the following components:
  - Management
  - Logistics
  - Search
  - Rescue
  - Medical

These common components will ensure that teams have similar structures, are able to integrate effectively and have standardised the primary aspects of a rescue response.

## **G5 USAR First Responders Networks**

1. Building the first tier of local capability involves the training and development of existing local emergency services and community responders to meet the needs of the affected population at the onset of the incident. Termed 'USAR First Responders', their role at the initial phase of an incident is that of:
  - Assessing the nature and scale of the incident

- Rescue and basic casualty care in the initial stages of a collapse incident
  - Providing information to domestic decision-makers about the event
  - Requesting the appropriate resources required to successfully complete the rescue phase
2. First Responder Networks would be most effective in areas where no organised USAR capability exists, as well as areas where any USAR response from structured teams may be delayed.
  3. It is envisaged that USAR First Responders will typically be personnel working in the local community or staff of local government organisations tasked with emergency management or response. For example; local police, medical staff or fire-fighters, government workers (including civil protection) or members of volunteer organisations.
  4. USAR First Responders require access to a dedicated cache of equipment, which will cater for their needs during training and while on deployment. This cache must include equipment needed to safely operate at its operational level. Annex I of the INSARAG Guidelines contains suggested equipment lists for all USAR levels.
  5. To assist in the development of USAR First Responders, INSARAG has developed the First Responders Training Package. (see G 8.1)

## **G6 Light Urban Search and Rescue Teams**

1. The second tier of local capacity building involves the training and development of structured rescue teams based within the local emergency services, civil protection or voluntary organisations. Termed 'Light USAR Teams', their role is that of:
  - Reconnaissance and survey of the affected area
  - Identify hazards and undertake actions to reduce the level of risk
  - Surface search and rescue
  - Initiating medical care and extrication of victims
  - Assisting international teams to integrate into local emergency management arrangements

2. The “Light” Team structure is based around the concept of maintaining a surface rescue capability at one site. The team will be capable of conducting rescues from structures of wood or light metal components, unreinforced masonry, adobe or raw mud and bamboo. The logistics component will be capable of establishing a Base of Operations including shelter, sanitation, tool repair, feeding, and hygiene arrangements. The search component will have building marking supplies and the ability to carry out a surface search. The team’s rescue component will be equipped with hand operated cutting tools; ropes and bars for lifting and cribbing materials for stabilising damaged structures. The medical component will have life support equipment to care for the team (including any search dogs) and for patients rescued, including stabilization and packaging.

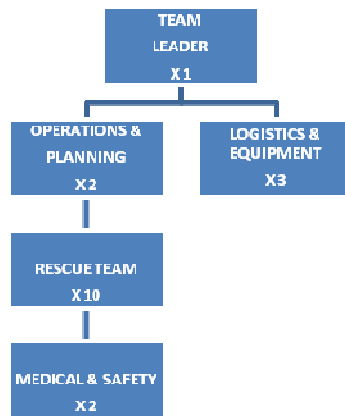


Figure 3: Demonstrates a possible structure to be used in the development of a Light USAR Team.

3. The Light USAR capability requires access to a dedicated cache of equipment, which will cater for its needs during training and while on deployment. This cache must include equipment to establish and maintain a Base of Operations as well as all other equipment needed to safely operate at its operational level. Annex I of the INSARAG Guidelines contains suggested equipment lists for all USAR team levels.

4. To assist in the development of structured teams capable of light rescue tasks, INSARAG has developed the Light USAR Training Programme (see INSARAG Guidance notes for reference)

**G7 Medium Urban Search and Rescue Teams**

1. A Medium USAR team comprises the five components required by the INSARAG Guidelines, Management, Logistics, Search, Rescue and Medical. Medium USAR teams have the ability to conduct technical search and rescue operations in collapsed or failed structures of heavy wood and/or reinforced masonry construction, and including structures reinforced with structural steel. They also must conduct rigging and lifting operations. The main differences between a Medium Team and a Heavy Team include the following:

- A Medium USAR team is required to have the capacity to work only at a single work-site;
- A Medium USAR team is required to have the capability of either search dogs capability or technical search; and
- A Medium USAR team must be adequately staffed to allow for 24 hour operations at 1 site (not necessarily at the same site; the sites may change) for up to 7 days.

2. A staffing level suggested in Table 1 will enable a USAR team to carry out 24 hour operations on one work site. This will enable rescue teams to operate in 12 hour shifts and thereby ensure that all personnel can have adequate rest periods to enable the team to function effectively, safely and continuously for several days.

<b>USAR Component</b>	<b>Tasks</b>	<b>Suggested Staff Allocation</b>	<b>Suggested Number (Total 38)</b>
<b>Management</b>	Command	Team Leader	1
	Coordination	Deputy Team leader	1
	Planning/Follow Up	Planning Officer	1
	Liaison/Media/Reporting	Liaison Officer	1
	Assessment/Analysis	Structural	1

		Engineer	
	Safety & Security	Safety Officer	1
<b>Search</b>	Technical Search	Technical Search Specialist	2
	Dog Search	Dog Handler	2
	Hazardous Materials Assessment	Hazardous Materials Specialist	2
<b>Rescue</b>	Breaking & Breaching; cutting; shoring; technical rope	Rescue Team Manager and Rescue Technicians	14 (2 teams comprising 1 team leader and 6 rescuers)
	Lifting & Moving	Heavy Rigging Specialist	2
<b>Medical</b>	Team Care ( Personnel & Dogs)	Medical Doctor	1
	Patient Care	Paramedic/Nurse	3
<b>Logistics</b>	Base of Operations	Logistics Team Manager	1
	Water supply	Transport Specialist	1
	Food supply	Logistician	1
	Transport capacity and fuel supply	Base Manager	2
	Communications	Communications Specialist	1

Table 1: Demonstrates a possible structure to be used in the development of a Medium USAR Team.

3. The logistics component will be capable of establishing a Base of Operations including shelter, sanitation, tool repair, feeding, and hygiene arrangements. The search component will have technical equipment used to detect and locate victims including specialised cameras, acoustic/seismic devices and/or search dogs.
4. The team's rescue component will be equipped with hydraulic, pneumatic and mechanical equipment for lifting and lowering loads up to 12 metric tons, for cutting metal debris up to 10mm, timber up to 450mm and for breaking concrete up to 300mm thick. In addition, the team will have the equipment and capability to assemble vertical, horizontal and diagonal shoring systems. The medical component will have life support equipment to care for the team (including Search dogs) and for casualties rescued, including stabilisation and packaging.
5. The Medium USAR capability requires access to a dedicated cache of equipment, which will cater for its needs during training and while on deployment. This cache must include needed equipment to safely operate at its operational level. Annex I of the INSARAG Guidelines contains suggested equipment lists for all USAR team levels.
6. To assist in the development of structured teams capable of medium level rescue tasks, INSARAG has developed the Medium USAR Training Programme (see INSARAG Guidance notes for reference).

#### **G8 Heavy Urban Search and Rescue Teams**

1. The final tier of local capacity building involves the training and development of structured rescue teams based within the local emergency services, civil protection or voluntary organisations. Termed "Heavy" USAR Teams', their role is that of:
  - Reconnaissance and survey of the affected area
  - Identify hazards and undertake actions to reduce the level of risk
  - Technical Search and rescue using a combination of sophisticated detection equipment and search dog capability
  - Cutting and breaching, as well as lifting and rigging techniques in structural elements of collapsed buildings beyond that of the Medium capability

- The ability to physically operate and logistically support at two remote locations simultaneously
  - Initiating medical care and extrication of victims that in some cases are deep entrapments
  - Assisting international teams to integrate into local emergency management arrangements
2. A Heavy USAR team comprises the five components required by the INSARAG Guidelines, Management, Logistics, Search, Rescue and Medical. Heavy USAR teams have the operational capability for complex technical search and rescue operations in collapsed or failed structures, particularly those involving structures reinforced and/or built with structural steel. The main differences between a Heavy Team and a Medium Team are as follows:
- A Heavy USAR team is required to have the equipment and manpower to work at a Heavy technical capability at two separate work-sites simultaneously;
  - A Heavy USAR team is required to have both a search dog and technical search capability;
  - A Heavy USAR team is required to have the technical capability to cut structural steel typically used for construction and reinforcement in multi-storey structures;
  - A Heavy USAR team must be able to conduct Heavy rigging and lifting operations and
  - A Heavy USAR team must be adequately staffed and logistically sufficient to allow for 24 hour operations at 2 independent sites (not necessarily at the same two sites; the sites may change) for up to 10 days.
3. The logistics component will be capable of establishing a Base of Operations including shelter, sanitation, tool repair, feeding, and hygiene arrangements, in addition to supporting operations in two separate locations. The search component will have technical equipment used to detect and locate live victims including specialised cameras and acoustic/seismic devices as well as search dogs trained.



<b>USAR Component</b>	<b>Tasks</b>	<b>Suggested Staff Allocation</b>	<b>Suggested Number (Total 55)</b>
<b>Management</b>	Command	Team Leader	1
	Coordination	Deputy Team Leader	1
	Planning	Planning Officer	1
	Liaison/Follow Up	Liaison Officer	1
	Media/Reporting	Deputy Liaison Officer	1
	Assessment/Analysis	Structural Engineer	1
	Safety & Security	Safety Officer	1
<b>Search</b>	Technical Search	Technical Search Specialist	2
	Dog Search	Dog Handler	4
	HAZMAT Assessment	HAZMAT Specialist	2
<b>Rescue</b>	Breaking & Breaching: cutting; shoring; technical rope	Rescue Team Manager and Rescue Technicians	28 (4 teams comprising 1 team leader and 6 rescuers)
	Lifting & Moving	Heavy Rigging Specialist	2
<b>Medical</b>	Team Care ( Personnel & Dogs)	Medical Doctor	1
	Patient Care	Paramedic/Nurse	3
<b>Logistics</b>	Base of Operations	Logistics Team Manager	1
	Water supply	Transport Specialist	1

	Food supply	Logistician	1
	Transport capacity and fuel supply	Base Manager	2
	Communications	Communications Specialist	1

Table 2: Demonstrates a possible structure to be used in the development of a Heavy USAR Team.

4. The team’s rescue component will be equipped with hydraulic, pneumatic and mechanical equipment for lifting and lowering loads up to 20 metric tons, for cutting metal debris up to 20mm, timber up to 600mm and for breaking concrete up to 450mm thick. In addition, the team will have the equipment and capability to assemble vertical, horizontal and diagonal shoring systems.
5. The medical component will have life support equipment to care for the team (including search dogs) and for patients rescued, including stabilisation and packaging.
6. The Heavy USAR capability requires access to a dedicated cache of equipment, which will cater for its needs during training and while on deployment. This cache must include equipment needed to safely operate at its operational level. Annex I of the INSARAG Guidelines contains suggested equipment lists for all USAR team levels.

**G9 USAR Training and Development Methodology**

1. Training and development, both initial and on-going, are critical to the successful implementation of any local USAR capacity building project and must cater for all the components of the capability.
2. The USAR management and administration infrastructure is responsible for the development of a standardised process to identify training needs. This might include:
  - Identification of existing resources, procedures and competences
  - Self-evaluation to determine actual operational capability
  - Gap analysis that will identify training requirements
  - Identification of pre-conditions for training to be effective

3. Unlike the single role of the USAR First Responders, the development of USAR teams requires the training of people in the different roles that make up a USAR team. Therefore, to support the development of USAR teams across the globe, INSARAG recommends a training methodology whereby training is linked to an individual’s position within a USAR Team.
4. Each functional position within a USAR team has been identified and role descriptions developed. These role descriptions are common across all levels of USAR team capability, Light, Medium and Heavy, with variations to accommodate the different levels of skill and knowledge. Further details of Position Descriptions can be found in G8.2.
5. INSARAG further recommends generic training requirements linked to team positions and role descriptions within the USAR Team structure. The training requirements are grouped into USAR Modules, facilitating organisations in developing USAR capacities.



Figure 4: USAR Training Methodology

### G9.1 USAR First Responder Training Programme

1 To assist in the development of local community response, INSARAG has developed the USAR First Responder Training Programme. The flexible programme can be used as a foundation for first responder capacity building in disaster prone countries. The programme, which can be adapted to suit local conditions, consists of:

- A USAR First Responder Course

- A USAR First Responder Training of Trainers (ToT) Course
  - Supporting material for the participants
- 2 This course is targeted at the local responders from the emergency services and members of local community organisations that will become involved in the emergency management of sudden onset disasters. The First Responders Course provides the participants with an overview of an organised approach to disaster response, with education provided primarily in the fields of rapid assessment, surface rescue, and initial medical care.
  - 3 The learning objectives of this course are as follows:-
    - Create an awareness of the generic hazards and risks within a structural collapse environment
    - Enable participants to conduct a survey of the impacted area
    - Enable participants to perform simple search and rescue techniques and render basic life saving measures
    - Develop local USAR capacity of the local emergency services
    - Provide an understanding of regional, national and international USAR support systems
    - Enable participants to organise volunteer rescuers on-site
  - 4 Participants on the Training of Trainers Course will also learn how to deliver the modules of the USAR First Responder Course in their own country or region. At the conclusion of the Training of Trainers Course, each participant will receive a complete package of training materials that can be used in his or her home country to further enhance local capacity building.
  - 5 Participants should be instructors based in existing training centres in his or her respective country. This will facilitate the introduction of subsequent capacity building programmes within each country.
  - 6 Disaster prone countries considering building up USAR capacities at this level are encouraged to contact the INSARAG secretariat, who will consult the relevant stakeholders and donor countries, to provide the necessary support in the conduct of such capacity building training.

## G9.2 USAR Team Position Descriptions

1. USAR teams require the performance of different roles within the team structure in order to be effective. Each functional position within a USAR team is identified and role descriptions are developed. These role descriptions are common across all levels of USAR team capability, Light, Medium and Heavy, with variations to accommodate the different levels of skill and knowledge.
2. There are 17 identified roles based on the 5 components of USAR teams:

USAR Component	Role	Function
Management	Team Leader	Command
	Deputy Team Leader/Operations Officer	Coordination/Operational Control
	Planning Officer	Planning
	Liaison Officer/Deputy Liaison Officer	Liaison/Media/Reporting/RDC/OSOCC/USAR Operations Cell
	Structural Engineer	Structural Assessment/Analysis
	Safety Officer	Safety/Security
Search	Technical Search Specialist	Technical Search
	Search Dog Handler	Dog Search
	HAZMAT (Hazardous Materials)	HAZMAT Assessment
Rescue	Rescue Team Officer	Breaking/breaching/cutting/ shoring/tactical rope
	Rescuer	Breaking/breaching/cutting/ shoring/tactical rope
	Heavy Rigging Specialist	Lifting/Moving
Medical	Medical Team Manager(Medical Doctor)	Team Care (Personnel/search dogs)
	Paramedic/Nurse	Patient Care
Logistics	Logistics Team Manager	Base of Operations Management
	Logistics Specialist	Food and water supply/base camp operations/transport capacity/fuel supply
	Communications Specialist	Communications

3. Not all teams will contain all identified positions, and some may comprise more, dependent upon the specific and local requirements of the team structure and whether it is a Heavy, Medium or Light team. It is important though that each described role and function is performed consistently according to the standard operating procedures in their respective countries.

### **G9.3 USAR Team Training Requirements**

1. As part of the role description document (G8.2) INSARAG have published details of both the ‘role specific’ and the ‘general’ training requirements for each position in the USAR team (see INSARAG Guidance notes for reference).
2. The recommended training requirements are ‘outcome based’ and are described in terms of Learning Outcomes and Performance Criteria that sets out a minimum level of training outcomes that are suitable for USAR personnel at the levels identified.
3. Countries who wish to seek assistance in building USAR capacities can do so through the INSARAG’s broad network of established USAR teams, and such requests can be made bilaterally or through a request made to the INSARAG Secretariat, who will then channel such request to interested donor countries for consideration.

### **G9.4 USAR Capacity Building Assessment Mission and Endorsement**

1. In order to support countries and organisations in the process of national USAR capacity building, and when such request is received, the INSARAG Secretariat will facilitate an “INSARAG USAR Capacity Building Assessment Mission” at a mutually agreed date, with the host country and global USAR experts, normally funded by donors or in kind, or supported by the host country.
2. The primary objective of the mission is to provide objective feedback on the current status of the host country’s national USAR capacities and offer constructive recommendations in line with the INSARAG Guidelines. The assessment is based on the five components of a USAR team as required by the INSARAG Guidelines. The mission may include a series of interviews with key stakeholders and some visits to several relevant sites as well as observing a skills demonstration in compiling its findings. Particular attention is paid to the

systems and procedures as described at the Chapter G of the INSARAG Guidelines.

**Detailed reference information on National USAR Capacity Building at the light, medium and heavy levels is in the INSARAG Guidance Notes on “INSARAG Minimum Operational Levels, Standards, Performance Criteria and Equipment Used for USAR Teams”.**

**G10 INSARAG Organisational and Operational Guidelines for Capacity Building of National USAR Teams**

Preparedness	Remarks
<b>1. USAR within the national disaster management framework</b>	
1.1. In accordance with the risk profile of the country, urban search and rescue capacity and planning should be included within the framework of the national and local emergency management and response structure and plans.	
<b>2. LEMA requirements</b>	
2.1. The country shall have an INSARAG national focal point in the Government, which the USAR team has access to.	
2.2. The Local Emergency Management Authority (LEMA)/ INSARAG national focal point shall have the capacity to access and input information into the Virtual OSOCC.	Not applicable for light teams
2.3. LEMA shall have a mechanism to mobilize available USAR teams nationally (e.g. a mobilization protocol).	
2.4. LEMA shall have the mechanisms and capacity to receive and integrate international USAR teams, when requested, with national USAR teams and other national response resources.	
<b>3. Administration</b>	Remarks
3.1. The national USAR team shall have an annual work plan.	
3.2. The national USAR team shall have policies, procedures and regulations for functional, operational and financial processes.	
3.3. If the national USAR team's performance depends on collaboration with partners, it shall have formal agreements or mechanisms.	
<b>4. Decision Making</b>	Remarks
4.1. There shall be an effective communication system between the national USAR team and its Local Emergency Management Authority (LEMA) to ensure timely decision making with regards to activation and deployment.	



5. Staffing Procedure	Remarks
5.1. A well-timed activation process for USAR team members shall exist.	
5.2. Members of the national USAR team shall undergo an annual medical exam as well as a medical screening process, before each deployment.	
5.3. The national USAR team's search dogs shall undergo a veterinary screening process, before each deployment and/or annually, done by the competent authority.	Not applicable for light teams
6. USAR Team Structure	Remarks
6.1. The national USAR team organisation shall be structured as recommended by the INSARAG Guidelines with regards to:	
6.1.1. Management	
6.1.2. Logistics	
6.1.3. Search	
6.1.4. Rescue	
6.1.5. Medical	
6.2. The national USAR team shall have clearly defined work positions and responsibilities.	
6.3. The national USAR team shall have sufficient personnel in its structure to work continuously as recommended by the INSARAG Guidelines. (Heavy USAR team 24 hrs operations for 10 days at 2 sites simultaneously; Medium USAR team 24 hrs operations for 7 days at 1 site/ Light USAR team: 12 hours for 3 days at 1 site)	
6.4. The national USAR team shall have the ability to be self-sufficient for the duration of deployment as recommended by the INSARAG guidelines.	
7. Training	Remarks
7.1. The national USAR team shall have a training program and a continuous skills maintenance program that prepares and equips personnel to operate in an USAR environment.	
7.2. The national USAR team shall be able to appropriately interact with other USAR teams involved in the emergency in for instance the case of:	

7.2.1. Other USAR teams, including international USAR teams, as appropriate, offering help	
7.2.2. Other USAR teams requesting support/ some specialised equipment	Not applicable for light teams
7.2.3. Other USAR teams requesting a part of the team to help them so that the team must be divided and work side by side with that team.	Not applicable for light teams
7.2.4. Integrating and working alongside other emergency services during the operations.	
7.3. The national USAR team shall be trained to interact with LEMA according to the local incident management procedure.	
7.4. USAR team and personnel training records shall be updated and maintained regularly.	
7.5. The national USAR team shall have a training program that prepares and equips the team's search dogs, if applicable.	Not applicable for light teams
7.6. The national USAR team shall co-organize an exercise with LEMA regularly, if necessary, together with other USAR teams.	
<b>8. Communications and Technology</b>	<b>Remarks</b>
8.1. The national USAR team shall have a communication system with the ability to communicate:	
8.1.1. Internally (amongst members of the USAR team)	
8.1.2. Externally (beyond the USAR team within the affected country)	
8.2. The national USAR team shall use GPS technology or shall be able to apply GIS capacity (Mapping/ Grid system).	Not applicable for light teams
<b>9. Documentation</b>	<b>Remarks</b>
9.1. A system shall be in place to ensure all national USAR team members have the following personal documentation:	
9.1.1. Valid national identification document	
9.1.2. Valid documentation to support right to clinical practice for medical personnel in the team, if applicable	Not applicable for light teams

9.1.3. Valid Search Dog Health Certificates / microchip record	Not applicable for light teams
9.2. The national USAR team management shall have the following team documentation:	
9.2.1 USAR team Personnel Manifest/ Organisational chart	
9.2.2 USAR team Fact Sheet	
9.2.3 Emergency contacts details of team members	
9.2.4 Equipment Inventory including communications equipment and the working frequencies	
9.2.5 Inventory of Hazardous Goods, including the safety sheets of each product (ej. MSDS – Material Safety Data Sheet)	Not applicable for light teams
9.2.6 Inventory of Controlled Substances (e.g. medications) attaching the official document signed by the competent authority	Not applicable for light teams
9.2.7 Inventory of team’s search dogs (names, age, species, gender, certificates etc.)	
9.3. The national USAR team shall have standard procedures covering the following:	
9.3.1. Communications	
9.3.2. Emergency evacuation	
9.3.3. Emergency medical evacuation	
9.3.4. Operations	
9.3.5. Safety and security	
9.3.6. Logistics	
9.3.7. Transportation	
9.3.8. Documenting the operations process, and utilizing the work logs for follow up research.	
9.3.9. Mobilization and demobilization	
<b>Mobilisation and Arrival in Affected Location</b>	<b>Remarks</b>
<b>10. Activation and Mobilisation</b>	
10.1. The national USAR team shall have the ability to deploy within 4 hours of activation in a local/national emergency.	
10.2. The national USAR team Fact Sheet shall be completed.	

10.3. The national USAR team management shall have a system in place to monitor and maintain equipment, before, during and after deployment.	
10.4. The national USAR team management shall have a process to gather information pertaining to the emergency and brief its team members on:	
10.4.1. Current situation including structural characteristics	
10.4.2. Weather	
10.4.3. Safety and security, including potential hazards e.g. Hazmat	
10.4.4. Emergency evacuation	
10.4.5. Health and welfare issues	
10.4.6. Special or unusual considerations	
<b>11. Base of Operations (BoO)</b>	<b>Remarks</b>
11.1. The national USAR team shall select a suitable site for the BoO in conjunction with LEMA.	May not be applicable for light teams
11.2. The national USAR team's BoO shall provide for the following components:	
11.2.1. BoO management	
11.2.2. Shelter for personnel and equipment	
11.2.3. Safety and security	
11.2.4. Communications	
11.2.5. Medical station providing for own personnel and search dog requirements	For light teams, there is a requirement to provide medical support to team members.
11.2.6. Food and water	
11.2.7. Sanitation and hygiene	
11.2.8. Search dog area	Not applicable for light teams
11.2.9. Equipment maintenance and repair area	
11.2.10. Waste management	

USAR Operations	Remarks
<b>12. Operational Coordination and Planning</b>	
12.1. The national USAR team shall have trained staff and dedicated equipment to work with the LEMA structure, and international USAR teams or other international actors, as appropriate.	
12.2. The national USAR team shall undertake initial assessments of the aftermath of the disaster and disseminate the information to LEMA.	
12.3. The national USAR team's medical management shall coordinate activities with relevant local health authorities including:	
12.3.1. Availability of local medical resources (including veterinary, if applicable) to support USAR medical activities;	
12.3.2. Casualty handover and transport procedure	
12.3.3. Fatality management procedure as determined by LEMA;	
12.4. The national USAR team management shall exercise a continuous command and control system over the full range of its sites of operation.	
12.5. The national USAR team shall do contingency planning for possible reassignment.	
<b>13. Operational Capacity</b>	<b>Remarks</b>
13.1. The national USAR team shall demonstrate a system to track its own personnel at all times.	
13.2. The national USAR team shall update its operational plan as required.	
<b>14. Area Reconnaissance</b>	<b>Remarks</b>
14.1. The national USAR team shall gather information from the affected population.	
14.2. The national USAR team shall have the ability to conduct structural assessments.	
14.3. The national USAR team shall conduct hazard identification and risk assessment and disseminate results to LEMA (health issues, environmental hazards, electricity, security and secondary threats).	
14.4. The national USAR team shall utilise the INSARAG Marking System.	

<b>15. Search Operations</b> * For Medium USAR teams, either of the search techniques may be used.				Remarks
15.1. The national USAR team shall take the appropriate search equipment from the BoO to the site of operations, based on the available information.				Not applicable for light teams
15.2. The national USAR team shall safely conduct search operations in confined spaces.				Not applicable for light teams
15.3. The national USAR team shall utilise search dogs* during the victim detection phase.				Not applicable for light teams
15.4. The search dog* teams shall be able to locate trapped victims under rubble.				Not applicable for light teams
15.5. The national USAR team shall conduct technical search* operations using cameras and listening devices during the victim location phase.				Not applicable for light teams
15.6. The national USAR team shall use effective and coordinated search methods.				
<b>16. Rescue Operations</b> For heavy USAR teams, sites must be separated by a reasonable distance requiring management to consider additional logistical support. For medium and light USAR teams, continuous work at two sites is not required.				Remarks
16.1. The national USAR team shall safely conduct rescue operations in confined spaces.				Not applicable for light teams
16.2. The national USAR team shall take the appropriate rescue equipment from the BoO to the site of operations, based on the available information.				Not applicable for light teams
16.3. The national USAR team shall demonstrate the ability to cut, break and breach through concrete walls, floors, columns and beams, structural steel, reinforcing bars, timber and building contents, (according to the dimensions on the table below):				
<b>Description</b>	<b>Heavy USAR Team</b>	<b>Medium USAR Team</b>	<b>Light USAR teams</b>	
Concrete walls and floors	300mm	150mm	*	* Limited capability expected, based on local conditions

Concrete columns and beams	450mm	300mm	*	* Limited capability expected, based on local conditions
Structural steel	6mm	4mm	n/a	
Reinforcing bars (Rebar)	20mm	10mm	*	* Limited capability expected, based on local conditions
Timber	600mm	450mm	*	* Limited capability expected, based on local conditions
16.4.1.	Penetrate vertically overhead to a void space			Not applicable for light teams
16.4.2.	Penetrate laterally into a void space			Not applicable for light teams
16.4.3.	Penetrate vertically below to a void space using a "dirty" technique (allowing debris to fall into the void space)			Not applicable for light teams
16.4.4.	Penetrate vertically below to a void space using a "clean" technique (preventing debris to fall into the void space)			Not applicable for light teams
16.4.	The national USAR team shall demonstrate rigging, lifting and moving of structural concrete columns and beams as part of a de-layering operation (see table for dimensions) utilising the following:			
16.4.1.	Pneumatic lifting equipment			Not applicable for light teams
16.4.2.	Hydraulic lifting equipment			
16.4.3.	Winches			Not applicable for light teams
16.4.4.	Other hand tools			
16.4.5.	Crane and/or other heavy machinery			Not applicable for light teams
<b>Description</b>	<b>Heavy USAR Team</b>	<b>Medium USAR Team</b>	<b>Light USAR team</b>	
Manual	2.5 metric tons(M/T)	1 metric ton(M/T)	n/a	Not applicable for light teams

Mechanical	20 metric tons(M/T)	12 metric tons(M/T)	n/a	Not applicable for light teams
16.5. The national USAR team shall demonstrate the ability to analyse and conduct stabilisation operations of structural elements as follows:				Not applicable for light teams
16.5.1. Cribbing and wedges				
16.5.2. Window/door stabilisation				Not applicable for light teams
16.5.3. Vertical stabilisation				Not applicable for light teams
16.5.4. Diagonal stabilisation				Not applicable for light teams
16.5.5. Horizontal stabilisation				Not applicable for light teams
16.6. The national USAR team shall demonstrate technical rope capability to:				
16.6.1. Construct and utilise a vertical raising and lowering system				Not applicable for light teams
16.6.2. Construct a system that allows for the movement of a load (including victims) from a high point laterally to a safe point below.				Not applicable for light teams
<b>17. Medical Care</b>				<b>Remarks</b>
17.1. The national USAR team shall have the ability to provide emergency medical care in collapsed structures including confined spaces from the time of access, during extrication to time of hand over.				Light teams are not required to perform in confined spaces
17.2. Medical care shall be available to USAR team members,				
17.2.1. Primary Care				
17.2.2. Emergency Medical care				
17.2.3. Health Monitoring				
17.2.4. Emergency Veterinary Care for search dogs in collaboration with their handlers, if applicable				Not applicable for light teams
17.3. The national USAR team shall have a procedure for dealing with serious injury or fatality amongst team members.				
17.4. The national USAR team shall utilise a medical incident log.				Not applicable for light teams



18. Safety Considerations	Remarks
18.1. The national USAR team shall correctly utilise the INSARAG Signalling System.	
18.2. The national USAR team members shall wear appropriate personal protective equipment as required by the situation.	
18.3. The national USAR team shall set up a safety monitoring system and safety documents on –site.	
19. Demobilisation Exit Strategy	Remarks
19.1. The national USAR team shall coordinate its departure with the LEMA.	
19.2. The national USAR team shall follow a specified USAR team demobilisation process.	
19.3. The national USAR team shall follow a specified procedure when donating the relevant materials	
19.4. The national USAR team shall dismantle its BoO before departure.	
19.5. The national USAR team shall submit a summary report to LEMA within 30 days following the demobilization.	

## **H INSARAG EXTERNAL CLASSIFICATION GUIDELINES AND CHECKLIST**

### **H1 INSARAG External Classification Preparation Guidelines**

#### **1. Introduction**

- 1.1 The UN GA Resolution 57/150 of 16 December 2002 on “Strengthening the Effectiveness and Coordination of International USAR Assistance, recognises the International Search and Rescue Advisory Group (INSARAG) Guidelines as the reference for the coordination of international USAR disaster response. The INSARAG Guidelines are developed by USAR responders from around the world to guide international USAR Teams and disaster prone countries on how to perform disaster response operations during major disasters. The INSARAG community recognises the importance of delivering proper service for USAR operations; it therefore recommends that USAR Teams responding internationally be classified only at a Medium or Heavy level in accordance with the INSARAG Guidelines.
- 1.2 Since the inception of the IEC process in 2005, the INSARAG Secretariat has developed an independent, verifiable, voluntary process to determine the operational capability and capacity of international USAR Teams. This system, having received unanimous support and a mandate from the international USAR community, will enable disaster affected countries to prioritise acceptance of international response support from USAR Teams who can add proven value to their national capacity.
- 1.3 This INSARAG External Classification (IEC) Preparation Guide is intended to assist USAR Teams to adequately prepare for and undergo an IEC process at the level of classification being sought by using a constantly evolving scenario-based exercise design that replicates, as realistically as possible, the situation likely to be encountered during an international USAR incident.

#### **2. Background**

During the 2005 USAR Team Leaders meeting it was unanimously agreed that an external and international representative cadre of USAR experts should conduct an external classification of a USAR Teams' capacity and capability.

- 2.2 The IEC concept, which provides an independent, non-biased, peer review of the USAR team's classification, was unanimously endorsed by the INSARAG Regional Groups and the INSARAG Steering Group with the inaugural IEC being conducted in November 2005. The list of successfully classified countries, as well as the schedule of upcoming IEC's can be found in the VO.

### **3. Purpose**

- 3.1 During times of disaster, affected and responding countries apply the INSARAG methodology, which ensures that USAR Teams and recipient countries understand each others roles and responsibilities and can effectively integrate, resulting in a coordinated and efficient rescue effort.
- 3.2 The proper introduction of international USAR Teams into a disaster environment aids an affected country faced with operational decisions regarding the prioritising of limited and over stretched national resources that will most benefit the country and its affected communities.
- 3.3 It is envisaged that the IEC process will improve the swift and appropriate deployment of classified international USAR Teams so that they can be deployed to the affected country within the shortest possible time frame. The IEC process also ensures that these teams will operate using common methodologies found within the INSARAG Guidelines.

### **4. Definition of USAR Team Capacity**

- 4.1. **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 normally not recommended that Light USAR teams deploy internationally to emergencies.

4.2. **Medium USAR Teams** have the operational capability for technical search and rescue operations in structural collapse incidents. Medium USAR teams are required to be able to search for entrapped persons. 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 VO. A medium team must be adequately staffed to allow for 24 hour operations at 1 site for up to 7 days.

4.3. **Heavy USAR Teams** have the operational capability for difficult and complex technical search and rescue operations. Heavy USAR teams are required to be able to search for entrapped persons use both canine and technical systems, and are envisaged for international assistance in disasters resulting in the collapse of multiple 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 VO. A heavy team must be adequately staffed to allow for 24 hour operations at 2 separate sites for up to 10 days.

## 5. IEC Cadre

5.1 The mandate of the IEC Cadre is to ensure the USAR Team undergoing the IEC process is evaluated in an objective and non-biased manner. The IEC Cadre members represent the entire INSARAG community, not their particular home organisation and consequently they need to remain objective and balance their operational experience as applied to the INSARAG Guidelines.

5.2 To become part of the cadre used by FCSS for the IEC process, potential cadre members will have to follow the enrolment mechanism posted on the VO and fulfil the Terms of Reference (TOR) required for IEC Cadre members. IEC Cadre members will be selected from this

pool by the INSARAG Secretariat, when needed to participate in an IEC.

- 5.3 The IEC Cadre will generally consist of selected inter-regional experts who will provide the required technical expertise to evaluate the various components (Management, Logistics, Search, Rescue and Medical) of an INSARAG USAR Team. In certain instances, one cadre member may provide expertise in more than one component. A representative of the INSARAG Secretariat will also be present.
- 5.4 The INSARAG Secretariat acknowledges and respects that INSARAG USAR Teams operate use different Standard Operating Procedures (SOP), doctrines and techniques to achieve common objectives. Therefore the selected IEC is not required to provide comment regarding technical standards beyond those required by the INSARAG Guidelines. The cadre should however view each application with the intent to develop safe and effective best practices which can be shared with the entire INSARAG community.
- 5.5 The IEC Cadre will give due regard to ensure operational practices are conducted safely. When a question of safety arises, the IEC Cadre will, in consultation with the host country liaison officer, intervene and stop the particular activity (if required) until it can be continued in a safe manner.

## **6. IEC of USAR Teams Composed of Multiple Organisations**

- 6.1 The classification awarded is only applicable to the USAR Team being evaluated. If the USAR Team is composed of several organisations (Government services, NGOs) who respond together as a combined team, then the classification awarded is applicable to that combination of organisations only (Figure 1). If any one of those organisations has the capacity, and intends to respond to international incidents independently, it needs to be classified within its own right, meaning that it will be required to undergo a separate IEC for their team as an independent entity (Figure 2).

Figure 1

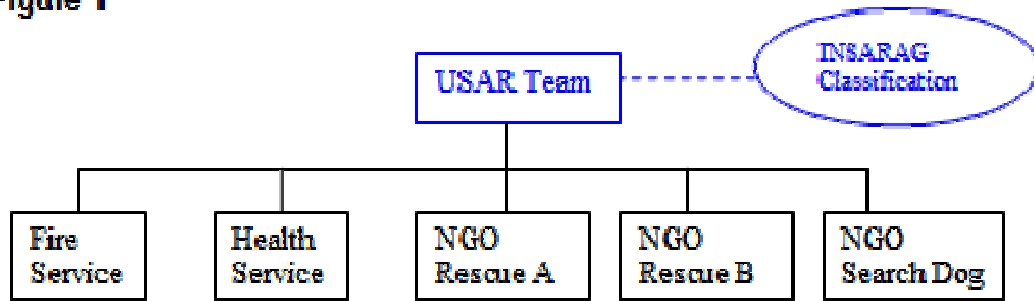
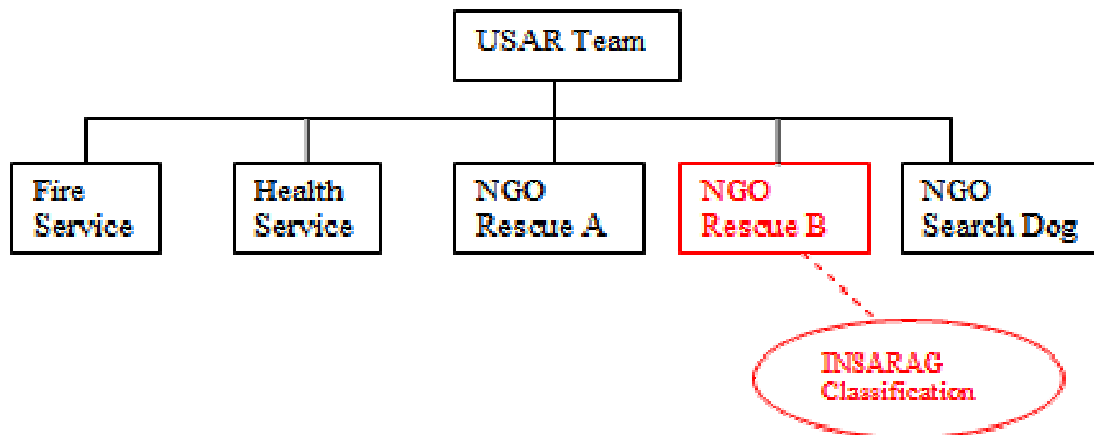


Figure 2



Any independent organisation that obtained its classification as part of a composite team and subsequently leaves that composite team is not permitted to promote itself as having obtained an INSARAG classification.

6.2 The INSARAG Secretariat encourages neighbouring countries or multiple teams within one country to consider conducting a joint IEC. This offers a financial benefit to each participant as a result of cost sharing as well as strengthening national or regional response. Exercising bilateral relationships, integrating and coordinating two USAR Teams working together in joint rescue operations and in some instances, pooling of the more expansive equipment and sharing a common Base of Operations (BoO) injects more realism into the exercise. That said, a joint IEC will not in any way compromise each

individual USAR Team as each team will be individually assessed on its demonstration of all the required criteria.

## **7. IEC Process**

- 7.1 Although the INSARAG community agree that all USAR Teams involved in international disaster response should undergo an IEC, this is a voluntary process.
- 7.2 USAR Teams are classified according to the IEC Checklist obtainable from the INSARAG Secretariat; this document is also posted in the VO. This checklist has been developed by the INSARAG Secretariat and has been revised as required to ensure uniform standards are maintained. It has been approved for use by the INSARAG Steering Group and is reviewed annually during the INSARAG USAR Team Leaders meeting.
- 7.3 FCSSS strongly recommends that a USAR Team wanting to undergo an IEC makes use of an IEC Mentor to assist with the planning and preparation. The INSARAG Secretariat encourages the use of an IEC Mentor and will, at the request of the country preparing for an IEC, recommend individuals suitable to perform the role of an IEC mentor. The IEC Mentor will have experience in being member of previous IEC Cadres and or have experience as part of the planning team and exercise control staff of a USAR Team that has previously undergone a successful IEC classification process. The role of the Mentor is to “coach” the team with regards to the preparation for its IEC and thereby maximise the probability of success. Any costs associated with the use of an IEC Mentor will be carried by the team preparing for its IEC.
- 7.4 Teams wanting to undergo an IEC are also encouraged to send representatives as observers to other IEC’s to gain an understanding regarding the IEC process.

## **8. IEC Application**

- 8.1 The INSARAG Guidelines defines USAR Teams as being sponsored by either a country or non-government organization (NGO) or a

- combination thereof, which has the endorsement of its Government's National INSARAG Focal Point.
- 8.2 Regardless of sponsorship, any USAR Team requesting an IEC must have the endorsement of its Government and is required to submit an application to the INSARAG Secretariat.
  - 8.3 The Government's National INSARAG Focal Point is required to submit a Letter of Endorsement to the INSARAG Secretariat supporting the application of the USAR Team to undergo an IEC.
  - 8.4 The USAR Team is required to schedule an IEC date with the INSARAG Secretariat at least one year before the intended IEC. Upon acceptance of the application, the INSARAG Secretariat will officially announce it in the VO and provide the necessary assistance and advice to the team on IEC issues.
  - 8.5 Three months prior to the IEC the team is required to submit a **USAR Team Portfolio** to the INSARAG Secretariat comprising:
    - 8.5.1 Details of National and Operational Focal Points;
    - 8.5.2 Details of experience in USAR operations (including national and international events);
    - 8.5.3 Details of international mobilisation and transport arrangements;
    - 8.5.4 Memorandum of Understanding (MOU) between the Government and USAR Team for deployment for international humanitarian assistance. For USAR Teams comprised of various Government organisations and/or NGO's, the MOU must clearly stipulate that these organisations are included in the USAR Team and have the full endorsement of the Government;
    - 8.5.5 MOU between the USAR Team and/or organisations supplying personnel and or equipment;
    - 8.5.6 USAR Team organisational chart;
    - 8.5.7 USAR Team international deployment training program;
    - 8.5.8 Details of arrangements for the medical evacuation of a team member while on international deployment;
    - 8.5.9 Details on the logistical, medical assets and the required maintenance programme;



8.5.10 Additional information the team may view as being relevant.

\* Note: Sample electronic copies of USAR Team portfolios may be requested from the INSARAG Secretariat for referencing.

## **9. IEC Exercise**

9.1 The IEC exercise design, conducted over a minimum period of 36 hours, from the time of activation, should simulate the USAR Team responding to an international disaster, against the backdrop of multiple collapse sites comprising rescue scenarios of varying complexities.

9.2 The operations phase of the exercise should be conducted at a venue that provides realistic props representing the collapse of multiple structures in the form of those seen in the urban environment.

9.3 The exercise should be designed making use of constantly evolving realistic structural collapse scenarios and should not be an exercise that demonstrates individual technical skills (staging the exercise using prefixed skill-performance stations). The entire classification exercise is required to last at least 36-hours.

9.4 The IEC exercise is all encompassing. It begins with the preparatory phase; which leads to the activation and mobilisation phase that is followed by a continuous operations phase that ends with the USAR Team(s) demonstrating its demobilisation procedures. The following guidance is provided for those teams preparing to undergo an IEC process:

9.4.1 Preparation Phase: The Portfolio of the USAR Team will be heavily scrutinised, including review of the submitted logistical inventory, and a random check of member personnel files including training and medical records. Appropriate interviews will be conducted by the IEC cadre with the Administrative and Operational Managers of the USAR Team as well as the national focal point, and will include visits to the team's mobilisation and logistics bases. Members of the IEC Cadre will visit the exercise site to ensure that simulations for the search

and rescue operations phase will be adequately covered in accordance to the IEC checklist;

- 9.4.2 Activation and mobilisation Phase: The IEC cadre will observe the USAR Team as it prepares to depart for the “affected country”;
- 9.4.3 Deployment Phase: Arrival in the affected country and the establishment of a Base of Operations (BoO). In order to ensure realistic logistical injects, the BoO should not be within walking distance of the work sites. Separate work sites (as required by Heavy USAR Teams) are defined as any work site that requires a USAR Team to be assigned to, thus requiring staff and equipment to operate at a different location, whilst continuing to work simultaneously at another separate work site, necessitating stand alone logistical support. Generally an assignment of this sort would last greater than 24 hours;
- 9.4.4 In accordance with the INSARAG Guidelines, the USAR Team must demonstrate the ability to set up and operate a initial Reception Departure Centre (RDC) and On Site Operations Coordination Centre (OSOCC), prior to an UNDAC team’s arrival;
- 9.4.5 The USAR Team is limited to making use of the tool and equipment cache they deploy with. No equipment from external sources may be utilised except for a crane to demonstrate heavy rigging and lifting capability;
- 9.4.6 The USAR Team must demonstrate the ability to function in an international emergency environment including the use of the VO and use of the appropriate INSARAG forms as found in the INSARAG guidelines;
- 9.4.7 Operations Phase: The USAR Team will perform a reconnaissance of its assigned operational area;
- 9.4.8 The USAR Team, depending on the level of classification sought will perform search operations making use of search dogs

- and/or technical search techniques (optical and acoustic/seismic);
- 9.4.9 The USAR Team will correctly employ the INSARAG marking and signalling techniques;
- 9.4.10 The USAR Team will perform rescue operations in collapsed structure environments (including confined spaces) using live victims that simulate real life situations;
- 9.4.11 The USAR Team will provide logistical support to maintain rescue operations over the length of the exercise, including at least one shift rotation of personnel;
- 9.4.12 The USAR Team will perform lifting, moving, cutting, breaking and shoring operations involving timber, concrete, metal and structural steels as required by the classification sought;
- 9.4.13 The USAR Team will demonstrate the capability to provide medical care to its team members, search dogs as well as victims encountered;
- 9.4.14 Demobilisation Phase: The USAR Team will demonstrate a coordinated demobilisation, with handover of its operational worksite to the LEMA;
- 9.4.15 Post Mission Phase: The USAR Team will demonstrate the procedures it uses for the debriefing of its personnel.
- 9.4.16 The IEC classification team will conduct its work in English however the USAR Team being classified may function in any language of its choice as long as there are sufficient interpreters to communicate with the IEC team.
- 9.5 The IEC exercise programme spans a total of five days with the suggested activities as follows:
- 9.5.1 Day 1: IEC Cadre arrive in-country and hold an informal meeting with its hosts;
- 9.5.2 Day 2: IEC Cadre conducts an internal meeting that includes time for an orientation programme for new IEC cadre members; this is followed by a presentation and discussion of the USAR

- Team's portfolio and a site visit to the administrative offices, logistics base and exercise site;
- 9.5.3 Day 3: Exercise cycle begins with Activation and visit to the Assembly point / Logistics base; observation of the establishment and operation on an initial RDC in the morning and the rescue operations at the disaster site from noon onwards continuing throughout the night;
- 9.5.4 Day 4: Ongoing USAR operations, including activities in the BoO and initial OSOCC, the IEC cadre will stop its observations at the thirty-six hour mark;
- 9.5.5 Day 5: This day can be used by the IEC for exit interviews and report writing, as required;
- 9.5.6 The official results of the IEC exercise will be presented to the USAR Team as soon as possible.
- 9.6 The IEC exercise is NOT a competition or a test. The IEC aims to inform the INSARAG Community and disaster affected countries that an INSARAG USAR Team has successfully completed an IEC, completely satisfying all criteria as laid out in the INSARAG guidelines and fulfils the minimum acceptable safe standards of an INSARAG Medium or Heavy team.

## **10. IEC Results**

- 10.1 USAR Teams must demonstrate the ability to satisfactorily achieve all the criteria found in the IEC Checklist in order to be successfully classified.
- 10.2 Teams will receive an official debrief of the findings led by the IEC Cadre Team Leader, supported by a written report on the IEC findings, copies of which will be made available for the USAR Team and national focal point. An additional IEC Advisory Note will also be included together with the official report. The Advisory Note provides a mechanism for improvement for the USAR Team and comprises informal suggestions, based on anecdotal experience, on how a USAR Team can further optimise its performance.

## 11. IEC Recognition



- 11.1 Following the IEC, the sponsor of the USAR Team will be issued with a certificate stating the date the team was externally classified and the capacity (Medium; Heavy) achieved. This information will also be entered into the USAR Directory by the INSARAG Secretariat who will advise UNDAC members during annual UNDAC induction and refresher courses.
- 11.2 The successful USAR Team will also receive a limited number of INSARAG IEC patches with the classification level and year in which it was achieved clearly stipulated. The instructions and procedures for wearing the patch on the uniform are available from the INSARAG Secretariat.

## 12. IEC Reclassification

- 12.1 The INSARAG Steering Group has endorsed a certificate validity of 5 years. During year four, the USAR Team should apply to the INSARAG Secretariat for renewal of its classification. A USAR Team may only be required to undergo another rigorous IEC exercise if it has not responded to an international disaster within the stipulated 5 year period. Documentary evidence of international response operations is required to be submitted to the INSARAG Secretariat.
- 12.2 The INSARAG Secretariat may also request that a smaller team of IEC Cadre attend the USAR Team's annual exercise to observe and be fully satisfied that the USAR Team has maintained its capability and capacity at the originally classified level.
- 12.3 The National INSARAG Focal Point is required to immediately inform the INSARAG Secretariat of any changes within the USAR Team and

its support framework that may fundamentally affect its capacity to function at the classified level.

### **13. IEC Observers**

- 13.1 If the USAR Team undergoing the IEC has invited observers to attend the classification exercise, these observers should attend a separate Observers Briefing conducted by the host organisation. During this briefing, observers are to be informed about the IEC process and be made aware that the observer delegation do not form part of the IEC and should not interfere with its function. It is the responsibility of the host organisation to manage the Observer Delegation throughout the exercise.

### **14. IEC Classifiers Checklist**

- 14.1 The following IEC classifiers checklist provides the IEC cadre as well as the USAR team that will be undergoing classification, a systematic process of cross-checking to ensure that the INSARAG guidelines are adhered to and unfolded throughout the classification process. USAR teams are encouraged to use this checklist for self evaluation. The IEC checklist will be fine tuned when new and relevant feedback is obtained from the IECs conducted. The updated copy of this checklist can be requested from the INSARAG Secretariat.

For additional enquiries, kindly contact the INSARAG Secretariat.

## H2 INSARAG External Classification Checklist

- Each element of the IEC checklist will be assessed by the IEC Team. Upon completion of the IEC, the IEC Team will provide a report consisting of;
  - Completed IEC checklist with Advisory Comments.
- For each assessed item on the IEC checklist, the IEC Team will determine whether the USAR team met the minimum standard by;
  - A green box with a 'Y' (representing 'Yes') in it means that the assessed team meets the minimum standards.
  - A yellow box with a 'Y' (representing 'Yes') indicates that the team meets the minimum standards. However, the IEC Team has determined that further improvement is necessary; reasons for any yellow box will be explained in the Advisory Comment.
  - A red box with 'NY' (representing 'Not Yet') in it means that the assessed team has not met the minimum standards at this point in time.
- The IEC process will include the following:
  - Written documents
  - Verbal presentation (this includes question and answer)
  - Observation of a 36 hour (minimum) constantly evolving scenario based USAR exercise; starting from the time of activation, mobilisation, operations, demobilisation and recovery.

Preparedness	Assessment Method	Remarks	Y / NY (Colour Code)
<b>1. INSARAG Focal Points</b>			
1.1. Does the USAR team have an INSARAG focal point in the Government?			
<b>2. Decision Making</b>	<b>Assessment Method</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
2.1. Is there an effective communication system between the USAR team and its sponsor to ensure timely decision making with regards to deployment?			
2.2. Is the USAR team management included in the deployment process?			
<b>3. Virtual OSOCC</b>	<b>Assessment Method</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
3.1 Is the team registered in the INSARAG Directory?			
3.2. Are there assigned persons to receive and post information on the VO, including complete USAR team Fact Sheet on both the VO and in a hard copy format prior to departure?			
3.3. Does the USAR team have the ability to access the VO during transit and while on mission in the affected country?			



4. Deployment Staffing Procedure	Assessment Method	Remarks	Y / NY (Colour Code)
4.1. Is there a system to mobilise sufficient USAR team members for deployment including a system to fill staffing shortages in a timely manner?			
4.2. Do the USAR team members undergo a medical screening process immediately prior to departure and is there a policy that allows for a team member to be replaced in a timely manner should they be deemed medically unfit for deployment?			
4.3. Do the USAR team's search dogs undergo a veterinary screening process prior to departure?			
5. USAR Team Structure	Assessment Method	Remarks	Y / NY (Colour Code)
5.1. Is the USAR team organisation structured in accordance with the INSARAG Guidelines with regards to:			
5.1.1. Management			
5.1.2. Logistics			
5.1.3. Search			
5.1.4. Rescue			
5.1.5. Medical			

<p>5.2. Does the USAR team have sufficient personnel in its structure to work continuously in accordance with the INSARAG Guidelines? (Heavy USAR team 24 hrs operations for 10 days at 2 sites simultaneously; Medium USAR team 24 hrs operations / 7 days at 1 site)</p>			
<p>5.3. Does the USAR team have the ability to be self-sufficient for the duration of deployment in accordance with the INSARAG guidelines?</p>			
<p><b>6. Training</b></p>	<p><b>Assessment Method</b></p>	<p><b>Remarks</b></p>	<p><b>Y / NY (Colour Code)</b></p>
<p>6.1. Does the USAR team have a training program that prepares and equips personnel to operate in an international environment including international, national and local USAR teams?</p>			
<p>6.2. Does the USAR team appropriately interact with other USAR teams involved in the emergency? In, for instance the case of:</p>			
<p>6.2.1. Other USAR teams offering help</p>			
<p>6.2.2. Other USAR teams requesting some specialised equipment</p>			
<p>6.2.3. Other USAR teams requesting a part of the team to help them so that the team must be divided and work side by side with that team.</p>			
<p>6.3. Has the team trained sufficient personnel to perform RDC and OSOCC functions?</p>			
<p>6.4. Is there a continuous skills maintenance program commensurate with the classification</p>			

level?			
6.5. Are USAR team and personnel training records updated and maintained regularly?			
6.6. Does the USAR team have a training program that prepares and equips USAR team search dogs to operate in an international environment?			
<b>7. Communications and Technology</b>	<b>Assessment Method</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
7.1. Does the USAR team have the ability to communicate:			
7.1.1. Internally			
7.1.2. Externally			
7.1.3. Internationally			
7.2. Does the USAR team use GPS technology?			
<b>8. Documentation</b>	<b>Assessment Method</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
8.1. Is there a system in place to ensure all USAR team members have the following personal travel documentation:			
8.1.1. Passport with a minimum of 6 months validity and 2 blank pages			
8.1.2. Visa( did the team check if one is needed)			

8.1.3. Passport photos x 6			
8.1.4. Photocopies of Passport x 4			
8.1.5. Record of inoculations/vaccinations required for international travel			
8.1.6. Copies of valid documentation to support right to clinical practice in home country of medical personnel in the team			
8.1.7. Copies of valid Search Dog Health Certificates / microchip record			
8.2. Does the USAR team management have the following team documentation:			
8.2.1. USAR team Personnel Manifest (if traveling by airplane)			
8.2.2. USAR team Fact Sheet			
8.2.3. Emergency contacts details of USAR team members			
8.2.4. Equipment Manifest including communications equipment			
8.2.5. Shippers Declarations of Hazardous Goods			
8.2.6. Manifest of Controlled Substances (e.g. medications)			
8.3. Does the USAR team have standard procedures covering the following:			
8.3.1. Communications			
8.3.2. Emergency evacuation			
8.3.3. Emergency medical evacuation & repatriation			
8.3.4. Operations			

8.3.5. Safety and security			
8.3.6. Logistics			
8.3.7. Transportation			
<b>Mobilisation and Arrival in Affected Country</b>	<b>Assessment Method</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
<b>9. Activation and Mobilisation</b>			
9.1. Does the USAR team have the ability to arrive at its designated point of departure within 8 hours of activation?			
9.2. Is the USAR team Fact Sheet completed and does it have multiple completed hard copies available for use in the affected country?			
9.3. Does the USAR team management have a system in place to monitor and maintain equipment, both before and during deployment?			
9.4. Does the USAR team management have a process to gather information pertaining to the emergency and brief USAR team members on:			
9.4.1. Current situation including structural characteristics			
9.4.2. Culture			
9.4.3. Weather			
9.4.4. Safety and security, including potential hazards e.g. Hazmat			
9.4.5. Emergency evacuation			
9.4.6. Health and welfare issues			
9.4.7. Special or unusual considerations			

9.5. Has the USAR team taken action to contact international representatives, other international responders and its own consular authorities (if present)?			
<b>10. Base of Operations (BoO)</b>	<b>Assessment Method</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
10.1. Does the USAR team select a suitable site for the BoO in conjunction with LEMA?			
10.2. Does the USAR team's BoO provide for the following components:			
10.2.1. BoO management			
10.2.2. Shelter for personnel and equipment			
10.2.3. Safety and security			
10.2.4. Communications			
10.2.5. Medical station providing for personnel and search dog requirements			
10.2.6. Food and water			
10.2.7. Sanitation and hygiene			
10.2.8. Search dog area			
10.2.9. Equipment maintenance and repair area			
10.2.10. Waste management			
<b>USAR Operations</b>	<b>Assessment Method</b>	<b>Remarks</b>	<b>Y / NY Colour Code)</b>
<b>11. RDC and OSOCC Coordination and Planning</b>			

11.1. Does the USAR team have trained staff and dedicated equipment to establish and operate a provisional RDC and OSOCC in accordance with the OSOCC Guidelines?			
11.2. Does the USAR team undertake assessments and disseminate the information to the OSOCC and LEMA?			
11.3. Does the USAR team ensure a representative is present at the OSOCC during USAR coordination meetings?			
11.4. Does the USAR team’s medical management coordinate activities with relevant local health authorities including:			
11.4.1. Availability of local and international medical resources (including veterinary) to support USAR medical activities;			
11.4.2. Casualty handover and transport procedure;			
11.4.3. Fatality management procedure as determined by LEMA;			
11.5. Does the USAR team utilise INSARAG documentation?			
11.6. Does the USAR team management exercise a continuous command and control system over the full range of his/her sites of operation?			
<b>12. Operational Capacity</b>	<b>Assessment Method</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
12.1. Does the USAR team demonstrate a system			

to track personnel at all times?			
12.2. Does the USAR team update its operational plan as required?			
<b>13. Area Reconnaissance</b>	<b>Assessment Method</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
13.1. Does the USAR team interview locals to gather information?			
13.2. Does the USAR team conduct structural assessments with appropriate structural engineering expertise?			
13.3. Does the USAR team conduct hazard/risk assessment and disseminate to the OSOCC and LEMA (health issues, environmental hazards, electricity, security and secondary threats)?			
13.4. Does the USAR team correctly utilise the INSARAG Marking System?			
<b>14. Search Operations</b> <i>* For Medium USAR teams, either of the search techniques may be used.</i>	<b>Assessment Method</b>	<b>Remarks</b>	<b>Y / NY (Colour code)</b>
14.1. Does the USAR team take the appropriate search equipment from the BoO to the site of operations, based on the available information?			
14.2. Does the USAR team safely conduct search operations in confined spaces?			
14.3. Does the USAR team utilise search dogs* during the victim detection phase?			



14.4. Can the search dog* teams locate trapped victims under rubble?					
14.5. Does the USAR team conduct technical search* operations using cameras and listening devices during the victim location phase?					
14.6. Does the USAR team use effective and coordinated search methods?					
<b>15. Rescue Operations</b> <i>For Heavy USAR teams, sites must be separated by a reasonable distance requiring management to consider additional logistical support. For Medium USAR teams, continuous work at two sites is not required.</i>			<b>Assessment Method</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
15.1. Does the USAR team safely conduct rescue operations in confined spaces?					
15.2. Does the USAR team take the appropriate rescue equipment from the BoO to the site of operations, based on the available information?					
15.3. Does the USAR team demonstrate the ability to cut, break and breach through concrete walls, floors, columns and beams, structural steel, reinforcing bars, timber and building contents, (according to the dimensions on the table below):					
Description	Heavy USAR Team	Medium USAR Team			
Concrete walls and floors	300mm	150mm			

Concrete columns and beams	450mm	300mm			
Structural steel	6mm	4mm			
Reinforcing bars (Rebar)	20mm	10mm			
Timber	600mm	450mm			
15.3.1. Penetrate vertically overhead to a void space					
15.3.2. Penetrate laterally into a void space					
15.3.3. Penetrate vertically below to a void space using a "dirty" technique (allowing debris to fall into the void space)					
15.3.4. Penetrate vertically below to a void space using a "clean" technique (preventing debris to fall into the void space)					
15.4. Does the USAR team demonstrate rigging, lifting and moving of structural concrete columns and beams as part of a de-layering operation (see table for dimensions) utilising the following:					
15.4.1. Pneumatic lifting equipment					
15.4.2. Hydraulic lifting equipment					
15.4.3. Winches					
15.4.4. Other hand tools					
15.4.5. Crane and/or other heavy machinery					
Description	Heavy USAR Team	Medium USAR Team			
Manual	2.5 metric tons(M/T)	1 metric ton(M/T)			
Mechanical	20 metric tons(M/T)	12 metric tons(M/T)			
15.5. Does the USAR team demonstrate the ability to analyse and conduct stabilisation operations of					

structural elements as follows:			
15.5.1. Cribbing and wedges			
15.5.2. Window/door stabilisation			
15.5.3. Vertical stabilisation			
15.5.4. Diagonal stabilisation			
15.5.5. Horizontal stabilisation			
15.6. Does the USAR team demonstrate technical rope capability to:			
15.6.1. Construct and utilise a vertical raising and lowering system			
15.6.2. Construct a system that allows for the movement of a load (including victims) from a high point laterally to a safe point below.			
<b>16. Medical Care</b>	<b>Assessment Method</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
16.1. Does the team have the ability to provide emergency medical care in collapsed structures including confined spaces from the time of access, during extrication to time of hand over?			
16.2. Is medical care available to USAR team members?			
16.2.1. Primary Care			
16.2.2. Emergency Medical care			
16.2.3. Health Monitoring			
16.2.4. Emergency Veterinary Care in collaboration with their handlers?			

16.3. Does the USAR team have a procedure for dealing with serious injury or fatality amongst team members?			
16.4. Does the USAR team utilise a medical incident log?			
<b>17. Safety Considerations</b>	<b>Assessment Method</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
17.1. Does the USAR team correctly utilise the INSARAG Signalling System?			
17.2. Do the USAR team members wear appropriate personal protective equipment (PPE) as required by the situation?			
<b>18. Demobilisation Exit Strategy</b>	<b>Assessment Method</b>	<b>Remarks</b>	<b>Y / NY (colour Code)</b>
18.1. Does the USAR team coordinate its departure with the OSOCC/LEMA and the RDC?			
18.2. Does the USAR team complete the USAR team Demobilisation Form?			
18.3. Does the USAR team management consult with their in country representative regards their departure arrangements when applicable?			
18.4. Does the USAR team do contingency planning for possible reassignment?			

- END OF CHECKLIST -

## I INSARAG RECLASSIFICATION GUIDELINES AND CHECKLIST

### 11 INSARAG Reclassification Guidelines

#### *Introduction*

The INSARAG Reclassification process is the means by which international USAR teams can maintain their classification status. It can also be used to reclassify a team to a different level i.e. medium to heavy or vice versa.

#### *Reasons for Reclassification*

The reasons that require a team to undergo a reclassification are as follows:

- *Expiration of the classification period:* The exact date can be decided by the team being reclassified but it must in the calendar year scheduled.
- *A significant change in team structure:* A team that undergoes a change in structure must inform the INSARAG Secretariat. The Secretariat will decide on the significance of the changes and decide on the need or otherwise for an early reclassification. The Secretariat will also decide if the team retains its classification or has it withdrawn until the reclassification.
- *A change in classification level e.g. a medium team moving to heavy:* Formally identified concerns during an operational deployment about the classification status of a team.
- The reclassification process can also be used to address areas a team has failed on during an IEC or reclassification

### **Reclassification Process**

#### *Introduction*

The aim is to impose the least burden possible on the team being assessed while still ensuring the standards laid down in the INSARAG Guidelines are met.

#### *Notification*

The INSARAG Secretariat will confirm with the team concerned the exact date of the reclassification.

A completed Reclassification Checklist and Portfolio of Evidence must be submitted to the INSARAG Secretariat at least six months prior to the reclassification date. This must take into account:

All items mentioned in the advisory note from the previous IEC/Reclassification  
Any areas that have been added or amended to the IEC process as compared to when the team was last classified.

A Reclassification Team Leader will be appointed at least six months prior to the reclassification.

#### *Evidence Requirements*

The Reclassification Team Leader will contact the team being reclassified as soon as possible to negotiate the levels of evidence required for each item on the checklist. If agreement can't be reached, the Secretariat will arbitrate.

#### *Levels of Evidence – Assessment Methods*

This section identifies the assessment methods that will be applied dependent on the required evidence. The options include:

Documentary evidence that the team have fully maintained a checklist item which had been satisfactory in the team's original IEC or reclassification.

Documentary evidence addressing an area from the previous advisory note and or IEC report.

A presentation to the Reclassification Team explaining how a requirement is being met.

A scenario based exercise to practically demonstrate the required items.

Verbal assessment by question and answer by the Reclassification Team.

Evidence of a recognised expert who has observed an area at a recent deployment, exercise or training event.

Random selection of specific areas by the Reclassification Team/Leader.

The Reclassification Team

A Reclassification Team will be identified by the INSARAG Secretariat and will include a classifier for each area (Search and Rescue, Management, Logistics, Medical). The agreed levels of evidence will be used to determine the involvement of each classifier. This will happen at least four months prior to the reclassification date and will determine who needs to attend the exercise (if applicable). Preferably at least one member of the Reclassification Team should be a member from the previous IEC or Reclassification Team.

### Observers

Acceptance of any observers at a reclassification exercise is at the discretion of the team being reclassified. If observers are accepted they will be completely liable for their own expenses (unless otherwise agreed). The host team is expected to provide any observers with suitable opportunities to see what they need.

### Reclassification Event

The host team is responsible for arranging all the details of the event including the arrangements for the Reclassification members. The host team must also ensure all pre-agreed reclassification areas and methods are fully available for the Reclassification Team. There should be regular contact between the event organisers and the Reclassification Team Leader to ensure all objectives are being met. The Reclassification Team Leader will keep organisers informed of any gaps and make every effort to ensure changes can be made to satisfy the requirements.

### Reporting

The Reclassification team will complete a report detailing the results of the process. The final report will include a completed Reclassification Checklist with comments on each item. For each assessed item on the Reclassification Checklist, the Reclassification Team will determine whether the USAR team met the minimum standard by:

A **green** box with a 'Y' (representing 'Yes') in it means that the assessed team meets the minimum standards.

A **yellow** box with a 'Y' (representing 'Yes') indicates that the team meets the minimum standards. However, the IEC Team has determined that further improvement is necessary; reasons for any yellow box will be explained in the Advisory Comment.

A **red** box with 'NY' (representing 'Not Yet') in it means that the assessed team has not met the minimum standards at this point in time.

The advisory part of the report is confidential between the team and the INSARAG Secretariat and will include details of any follow up actions required. The full report will be provided to the sponsor and team being reclassified at the end of the process.

For detailed information on IEC/IER see the IEC guidelines in the Virtual On-Site Operations Coordination Centre (VOSOCC).



**I2 INSARAG Reclassification Checklist (version 2010)**

<b>Preparedness</b>	<b>Assessment Method</b>	<b>Justification</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
<b>1. INSARAG Focal Points</b>				
1.1. Does the USAR team have an INSARAG focal point in the Government?				
<b>2. Decision Making</b>	<b>Assessment Method</b>	<b>Justification</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
2.1. Is there an effective communication system between the USAR team and its sponsor to ensure timely decision making with regards to deployment?				
2.2. Is the USAR team management included in the deployment process?				
<b>3. Virtual OSOCC</b>	<b>Assessment Method</b>	<b>Justification</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
3.1 Is the team registered in the INSARAG Directory?				
3.2. Are there assigned persons to receive and post information on the VO, including complete USAR team Fact Sheet on both the VO and in a hard copy format prior to departure?				
3.3. Does the USAR team have the ability to access the VO during transit and while on mission				

in the affected country?				
<b>4. Deployment Staffing Procedure</b>	<b>Assessment Method</b>	<b>Justification</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
4.1. Is there a system to mobilise sufficient USAR team members for deployment including a system to fill staffing shortages in a timely manner?				
4.2. Do the USAR team members undergo a medical screening process immediately prior to departure and is there a policy that allows for a team member to be replaced in a timely manner should they be deemed medically unfit for deployment?				
4.3. Do the USAR team's search dogs undergo a veterinary screening process prior to departure?				
<b>5. USAR Team Structure</b>	<b>Assessment Method</b>	<b>Justification</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
5.1. Is the USAR team organisation structured in accordance with the INSARAG Guidelines with regards to:				
5.1.1. Management				
5.1.2. Logistics				
5.1.3. Search				
5.1.4. Rescue				
5.1.5. Medical				

<p>5.2. Does the USAR team have sufficient personnel in its structure to work continuously in accordance with the INSARAG Guidelines? (Heavy USAR team 24 hrs operations for 10 days at 2 sites simultaneously; Medium USAR team 24 hrs operations / 7 days at 1 site)</p>				
<p>5.3. Does the USAR team have the ability to be self-sufficient for the duration of deployment in accordance with the INSARAG guidelines?</p>				
<p><b>6. Training</b></p>	<p><b>Assessment Method</b></p>	<p><b>Justification</b></p>	<p><b>Remarks</b></p>	<p><b>Y / NY (Colour Code)</b></p>
<p>6.1. Does the USAR team have a training program that prepares and equips personnel to operate in an international environment including international, national and local USAR teams?</p>				
<p>6.2. Does the USAR team appropriately interact with other USAR teams involved in the emergency? In, for instance the case of:</p>				
<p>6.2.1. Other USAR teams offering help</p>				
<p>6.2.2. Other USAR teams requesting some specialised equipment</p>				
<p>6.2.3. Other USAR teams requesting a part of the team to help them so that the team must be divided and work side by side with that team.</p>				
<p>6.3. Has the team trained sufficient personnel to perform RDC and OSOCC functions?</p>				
<p>6.4. Is there a continuous skills maintenance program commensurate with the classification</p>				

level?				
6.5. Are USAR team and personnel training records updated and maintained regularly?				
6.6. Does the USAR team have a training program that prepares and equips USAR team search dogs to operate in an international environment?				
<b>7. Communications and Technology</b>	<b>Assessment Method</b>	<b>Justification</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
7.1. Does the USAR team have the ability to communicate:				
7.1.1. Internally				
7.1.2. Externally				
7.1.3. Internationally				
7.2. Does the USAR team use GPS technology?				
<b>8. Documentation</b>	<b>Assessment Method</b>	<b>Justification</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
8.1. Is there a system in place to ensure all USAR team members have the following personal travel documentation:				
8.1.1. Passport with a minimum of 6 months validity and 2 blank pages				
8.1.2. Visa( did the team check if one is needed)				

8.1.3. Passport photos x 6				
8.1.4. Photocopies of Passport x 4				
8.1.5. Record of inoculations/vaccinations required for international travel				
8.1.6. Copies of valid documentation to support right to clinical practice in home country of medical personnel in the team				
8.1.7. Copies of valid Search Dog Health Certificates / microchip record				
8.2. Does the USAR team management have the following team documentation:				
8.2.1. USAR team Personnel Manifest (if traveling by airplane)				
8.2.2. USAR team Fact Sheet				
8.2.3. Emergency contacts details of USAR team members				
8.2.4. Equipment Manifest including communications equipment				
8.2.5. Shippers Declarations of Hazardous Goods				
8.2.6. Manifest of Controlled Substances (e.g. medications)				
8.3. Does the USAR team have standard procedures covering the following:				
8.3.1. Communications				
8.3.2. Emergency evacuation				
8.3.3. Emergency medical evacuation & repatriation				
8.3.4. Operations				

8.3.5. Safety and security				
8.3.6. Logistics				
8.3.7. Transportation				
<b>Mobilisation and Arrival in Affected Country</b>	<b>Assessment Method</b>	<b>Justification</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
<b>9. Activation and Mobilisation</b>				
9.1. Does the USAR team have the ability to arrive at its designated point of departure within 8 hours of activation?				
9.2. Is the USAR team Fact Sheet completed and does it have multiple completed hard copies available for use in the affected country?				
9.3. Does the USAR team management have a system in place to monitor and maintain equipment, both before and during deployment?				
9.4. Does the USAR team management have a process to gather information pertaining to the emergency and brief USAR team members on:				
9.4.1. Current situation including structural characteristics				
9.4.2. Culture				
9.4.3. Weather				
9.4.4. Safety and security, including potential hazards e.g. Hazmat				
9.4.5. Emergency evacuation				
9.4.6. Health and welfare issues				
9.4.7. Special or unusual considerations				

9.5. Has the USAR team taken action to contact international representatives, other international responders and its own consular authorities (if present)?				
<b>10. Base of Operations (BoO)</b>	<b>Assessment Method</b>	<b>Justification</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
10.1. Does the USAR team select a suitable site for the BoO in conjunction with LEMA?				
10.2. Does the USAR team's BoO provide for the following components:				
10.2.1. BoO management				
10.2.2. Shelter for personnel and equipment				
10.2.3. Safety and security				
10.2.4. Communications				
10.2.5. Medical station providing for personnel and search dog requirements				
10.2.6. Food and water				
10.2.7. Sanitation and hygiene				
10.2.8. Search dog area				
10.2.9. Equipment maintenance and repair area				
10.2.10. Waste management				
<b>USAR Operations</b>	<b>Assessment Method</b>	<b>Justification</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
<b>11. RDC and OSOCC Coordination and Planning</b>				

11.1. Does the USAR team have trained staff and dedicated equipment to establish and operate a provisional RDC and OSOCC in accordance with the OSOCC Guidelines?				
11.2. Does the USAR team undertake assessments and disseminate the information to the OSOCC and LEMA?				
11.3. Does the USAR team ensure a representative is present at the OSOCC during USAR coordination meetings?				
11.4. Does the USAR team's medical management coordinate activities with relevant local health authorities including:				
11.4.1. Availability of local and international medical resources (including veterinary) to support USAR medical activities;				
11.4.2. Casualty handover and transport procedure;				
11.4.3. Fatality management procedure as determined by LEMA;				
11.5. Does the USAR team utilise INSARAG documentation?				
11.6. Does the USAR team management exercise a continuous command and control system over the full range of his/her sites of operation?				
<b>12. Operational Capacity</b>	<b>Assessment Method</b>	<b>Justification</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
12.1. Does the USAR team demonstrate a system				



to track personnel at all times?				
12.2. Does the USAR team update its operational plan as required?				
<b>13. Area Reconnaissance</b>	<b>Assessment Method</b>	<b>Justification</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
13.1. Does the USAR team interview locals to gather information?				
13.2. Does the USAR team conduct structural assessments with appropriate structural engineering expertise?				
13.3. Does the USAR team conduct hazard/risk assessment and disseminate to the OSOCC and LEMA (health issues, environmental hazards, electricity, security and secondary threats)?				
13.4. Does the USAR team correctly utilise the INSARAG Marking System?				
<b>14. Search Operations</b> <i>* For Medium USAR teams, either of the search techniques may be used.</i>	<b>Assessment Method</b>	<b>Justification</b>	<b>Remarks</b>	<b>Y / NY (Colour code)</b>
14.1. Does the USAR team take the appropriate search equipment from the BoO to the site of operations, based on the available information?				
14.2. Does the USAR team safely conduct search operations in confined spaces?				
14.3. Does the USAR team utilise search dogs* during the victim detection phase?				

14.4. Can the search dog* teams locate trapped victims under rubble?						
14.5. Does the USAR team conduct technical search* operations using cameras and listening devices during the victim location phase?						
14.6. Does the USAR team use effective and coordinated search methods?						
<b>15. Rescue Operations</b> <i>For Heavy USAR teams, sites must be separated by a reasonable distance requiring management to consider additional logistical support. For Medium USAR teams, continuous work at two sites is not required.</i>			<b>Assessment Method</b>	<b>Justification</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
15.1. Does the USAR team safely conduct rescue operations in confined spaces?						
15.2. Does the USAR team take the appropriate rescue equipment from the BoO to the site of operations, based on the available information?						
15.3. Does the USAR team demonstrate the ability to cut, break and breach through concrete walls, floors, columns and beams, structural steel, reinforcing bars, timber and building contents, (according to the dimensions on the table below):						
Description	Heavy USAR Team	Medium USAR Team				
Concrete walls and floors	300mm	150mm				

Concrete columns and beams	450mm	300mm				
Structural steel	6mm	4mm				
Reinforcing bars (Rebar)	20mm	10mm				
Timber	600mm	450mm				
15.3.1. Penetrate vertically overhead to a void space						
15.3.2. Penetrate laterally into a void space						
15.3.3. Penetrate vertically below to a void space using a "dirty" technique (allowing debris to fall into the void space)						
15.3.4. Penetrate vertically below to a void space using a "clean" technique (preventing debris to fall into the void space)						
15.4. Does the USAR team demonstrate rigging, lifting and moving of structural concrete columns and beams as part of a de-layering operation (see table for dimensions) utilising the following:						
15.4.1. Pneumatic lifting equipment						
15.4.2. Hydraulic lifting equipment						
15.4.3. Winches						
15.4.4. Other hand tools						
15.4.5. Crane and/or other heavy machinery						
Description	Heavy USAR Team	Medium USAR Team				
Manual	2.5 metric tons(M/T)	1 metric ton(M/T)				
Mechanical	20 metric tons(M/T)	12 metric tons(M/T)				
15.5. Does the USAR team demonstrate the ability to analyse and conduct stabilisation operations of						

structural elements as follows:				
15.5.1. Cribbing and wedges				
15.5.2. Window/door stabilisation				
15.5.3. Vertical stabilisation				
15.5.4. Diagonal stabilisation				
15.5.5. Horizontal stabilisation				
15.6. Does the USAR team demonstrate technical rope capability to:				
15.6.1. Construct and utilise a vertical raising and lowering system				
15.6.2. Construct a system that allows for the movement of a load (including victims) from a high point laterally to a safe point below.				
<b>16. Medical Care</b>	<b>Assessment Method</b>	<b>Justification</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
16.1. Does the team have the ability to provide emergency medical care in collapsed structures including confined spaces from the time of access, during extrication to time of hand over?				
16.2. Is medical care available to USAR team members?				
16.2.1. Primary Care				
16.2.2. Emergency Medical care				
16.2.3. Health Monitoring				
16.2.4. Emergency Veterinary Care in collaboration with their handlers?				

16.3. Does the USAR team have a procedure for dealing with serious injury or fatality amongst team members?				
16.4. Does the USAR team utilise a medical incident log?				
<b>17. Safety Considerations</b>	<b>Assessment Method</b>	<b>Justification</b>	<b>Remarks</b>	<b>Y / NY (Colour Code)</b>
17.1. Does the USAR team correctly utilise the INSARAG Signalling System?				
17.2. Do the USAR team members wear appropriate personal protective equipment (PPE) as required by the situation?				
<b>18. Demobilisation Exit Strategy</b>	<b>Assessment Method</b>	<b>Justification</b>	<b>Remarks</b>	<b>Y / NY (colour Code)</b>
18.1. Does the USAR team coordinate its departure with the OSOCC/LEMA and the RDC?				
18.2. Does the USAR team complete the USAR team Demobilisation Form?				
18.3. Does the USAR team management consult with their in country representative regards their departure arrangements when applicable?				
18.4. Does the USAR team do contingency planning for possible reassignment?				

- END OF CHECKLIST -

## ANNEXES

### ANNEX A: INSARAG AWARENESS TRAINING COURSE

#### 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

## **ANNEX B: INSARAG Regional USAR Earthquake Response Exercise**

### **1. Background**

1. After the adoption of GA Resolution 57/150 on “Strengthening the effectiveness and coordination of urban search and rescue assistance”, INSARAG is utilising national and international USAR exercises conducted by the INSARAG Regional Groups of Africa/Europe, Asia/Pacific and the Americas 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 methodologies amongst 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. Exercise Objectives**

1. The objective of the INSARAG USAR exercise is to introduce and practice INSARAG disaster response methodologies and includes the following:
  - 1.1 International alert and notification procedures on the Virtual



## OSOCC

- 1.2 Host country's response to earthquakes
- 1.3 Mobilisation of international USAR teams
- 1.4 Dispatch of an UNDAC team
- 1.5 Demonstrate assessment techniques and information management
- 1.6 Demonstrate joint operations planning by international USAR teams, national teams and the Local Emergency Management Authority (LEMA) in the OSOCC
- 1.7 Demonstrate host country disaster management mechanisms for the arrival, coordination and utilisation of international USAR assistance
- 1.8 Demonstrate the role of the in-country United Nations team (UNCT) representatives and partners

### **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 Agencies in country representatives as appropriate
  - 1.6 Local media
2. International disaster response organisations:
  - 2.1 Country and team INSARAG focal points
  - 2.2 International USAR team leaders and operations managers
  - 2.3 USAR team liaison persons
  - 2.4 Humanitarian Partnership support staff
  - 2.5 United Nations Disaster Assessment and Coordination (UNDAC) team
  - 2.6 Other national and international disaster response organisations,

as appropriate (UN, NGOs, media, military, etc.)

#### **4. Exercise Outline**

The exercise comprises two parts:

##### **Part 1 – Preparation**

1. A one and a half day refresher and breakout planning exercise to familiarise participants with internationally agreed INSARAG deployment and coordination procedures, based on the INSARAG Guidelines, so as to enable effective execution of the exercise. This part of the exercise is intended to not only bring participants up to speed on INSARAG methodologies, but to provide a platform for useful learning interaction amongst the local government, national and regional USAR practitioners and related agencies.

##### **Part 2 – Exercise**

2. The INSARAG Earthquake Response Exercise is a one and a half day national exercise, which includes an international component. The exercise will be conducted in close cooperation with the National Disaster Authorities (LEMA) and, where appropriate, the UN Country Team (UNCT), Host Country's USAR teams, National Customs and Immigration Authorities and other UN partners.
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). Participants will have to, as in real life response, race against time to

assess, prioritise, and develop a rescue strategy to save lives trapped under the rubble. An “hour glass time component” has been factored into the various scenarios, and only through appropriate and timely procedures and closures, will a “life” be saved.

4. A de-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 participants to provide feedback and seek further clarifications, if necessary to the Exercise controllers (EXCON).

## **5. Injects**

1. Injects will aim to replicate the real life situation as far as possible. The following principles have been considered in the conduct of this inject-driven exercise:
  - 1.1 Injects should be challenging and relevant, mirroring actual previous rescue operations
  - 1.2 Certain exercise artificialities and constraints are expected in this setting, for instance, working in compressed time timelines
  - 1.3 Participants are encouraged to be flexible and imaginative at times, and take on challenges and issues as they develop
  - 1.4 Exercise organisers will develop an initial timeline for introduction of injects
  - 1.5 Injects will support the stated training objectives
  - 1.6 Outcomes of subsequent injects will be based according to responses received from the participants, as well as other external facets of a disaster, such as media pressure and censure of operations due to site safety issues, for instance.

## **6. Exercise Planning Timetable**

1. Pre-exercise preparation by the INSARAG Secretariat (FCSS/OCHA), EXCON group, role players, and arrival of participants - **one day** before the exercise

**Part 1 – Preparatory Training:**

2. INSARAG module – **1.5 days** and includes:
  - 2.1 Exercise participants (national and international)
  - 2.2 Exercise organisers (national and international)
  - 2.3 Covering the following topics:
    - 2.3.1 Risk profile and disaster response system in Host Country
    - 2.3.2 Overview of INSARAG
    - 2.3.3 UN disaster response tools
    - 2.3.4 Responsibilities of INSARAG members

**Part 2 – Exercise:**

3. USAR Earthquake response exercise – **1.5 days** and includes:
  - 3.1 Exercise participants (national and international)
  - 3.2 Exercise organisers (national and international)
  
4. The command-post exercise covers the following phases of the response operation:
  - 4.1 Activation of LEMA after the earthquake
  - 4.2 First assessments by LEMA
  - 4.3 Assignment of national USAR and Relief teams
  - 4.4 Arrival of the UNDAC team and international response teams at the airport
  - 4.5 Customs and immigration procedures
  - 4.6 Establishment of a UN Reception/Departure Centre (RDC)
  - 4.7 Establishment of the UN On-Site Operations Coordination Centre (OSOCC)
  - 4.8 Assignment of international USAR teams to their disaster sites

- 4.9 Establishing inter- cluster coordination mechanisms in the main areas of areas of Food, WASH (Water and Sanitation), Health, Emergency Shelter, Logistics and Early Recovery, Security, etc.
- 4.10 Joint operations planning meetings
- 4.11 Media management and conduct of a press conference
- 4.12 Planning for the transition from USAR phase to the relief phase and departure coordination of international USAR teams

## **7. Exercise Preparation**

- 1. To confirm the actual exercise dates and venue (6 months prior)
- 2. Preparatory meeting of exercise organisers in host country (3 months prior)
- 3. Announcement of the exercise to INSARAG community (2 month prior)
- 4. Invitation of participants (2 months prior)
- 5. Final preparatory meeting and training (1 day prior)

## **8. Human Resources from Host Country**

- 1. 1 Exercise Director
- 2. 1 Secretary
- 3. 1 Exercise facilitator (at the airport)
- 4. 1 Exercise facilitator (at LEMA)
- 5. 3 Exercise Facilitators (for USAR activities in situation rooms)
- 6. 1 Exercise Facilitator (for non USAR activities)
- 7. 6 to 10 role-players to represent affected population, national or international response organisations, media, Government and donor officials, etc
- 8. Translators, required as necessary

## **9. Human Resources from FCSS**

- 1. 1 Exercise Director (INSARAG Secretariat)
- 2. 1 Exercise facilitator (at the Reception/Departure Centre)
- 3. 1 Exercise facilitator (at the OSOCC)

4. 4 USAR experts selected to facilitate the situation rooms
5. Observers from participating countries and organisations (national and international) may be requested to act as role-players as appropriate
6. Facilitators and coaches: Participants with extensive operational experience may be requested to assist the EXCON with providing injects in line with the exercise scenario and to provide guidance and clarification where needed.

## **10. Logistics**

### **1. Resources to be provided by Host Country:**

- 1.1 Office space for exercise organisers
- 1.2 Lecture room with electronic presentation facilities for plenary sessions (approximately 80 to 100 capacity), internet connectivity is required
- 1.3 Three Break-out rooms on the evening of day 2 for exercise preparation. One of these rooms requires internet connectivity
- 1.4 Office space at the airport to establish Reception Centre
- 1.5 Office space for LEMA operations room (ideally the LEMA emergency operations centre)
- 1.6 Office space (room or tent) with internet connectivity and electricity to establish the OSOCC
- 1.7 Flip charts and stationery to put up maps and informative charts.
- 1.8 Four rooms (or sheltered areas) for the simulation of assessment and field operations. These rooms will simulate various districts of the affected area.
- 1.9 IT and Communications requirements: 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.

- 1.10 Accommodation: Hotel accommodation, with a negotiated rate for international participants (international participants will pay individually for hotel stay)
- 1.11 Transport: Shuttle service between the hotel, venue and airport and further need for vehicles and drivers depends on the size of the exercise area

## **2. Resources to be coordinated by FCSS**

- 2.1 Invitation to International USAR and other humanitarian participants
- 2.2 Announcement and registration for the exercise through the VO
- 2.3 Travel information of international participants to and from the Host Country
- 2.4 Deployment of support module to OSOCC
- 2.5 Deployment of an UNDAC team

**ANNEX C: OSOCC PLANNING FORM**

INCIDENT INFORMATION	
<b>USAR Team:</b> _____	<b>Date/Time:</b> _____
<b><u>Current Situation reported from LEMA:</u></b>	
_____	
_____	
_____	
<b><u>Accomplishments of Last Operations Period:</u></b>	
Work Site Location: _____	
Number of live rescues accomplished: _____	
Number of deceased recovered: _____	
Number of Buildings Assesses: _____	
Totally Collapsed _____ Partially _____ Undamaged _____	
<b><u>Assignments for Next Operations Period:</u></b>	
Search assignment _____	
Rescue assignment _____	
Medical assignment _____	
Engineer assignment _____	
_____	
_____	
_____	
<b><u>USAR Team Needs:</u></b>	
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...) - _____	
<b><u>Affected Population Needs:</u></b> _____ <b>Number of affected population in assigned area:</b> _____	
Food - yes or no	
Water - yes or no	
Shelter - yes or no	
Sanitation - yes or no	
Medical – yes or no	
others: _____	
_____	
<b><u>Location of BoO (Street and GPS):</u></b> _____	
_____	
<b><u>Communications means:</u></b>	
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<sup>3</sup>): \_\_\_\_\_

**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: 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 the reporter has a deadline for the 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
- 2.18 Do not run down the efforts of the affected country or any other organisation
- 2.19 Do not compare the response to one disaster with that of another

## ANNEX I: SUGGESTED USAR TEAM EQUIPMENT LIST

The following lists provide a basic overview of the type of equipment required for the different operational USAR team levels as defined by the INSARAG IEC checklist. Quantities of the equipment mentioned are depended on the size and structure of a team.

### 1. USAR Light Operational Level

Hand tools:

- Sledge Hammers (8 to 10 lb. [3.5 kg to 4.5 kg])
- Sledge Hammers (3 to 4 lb. [1.4 kg to 1.8 kg])
- Cold Chisels (1-inch x 77/s-inch [25 mm x 197 mm])
- Pinch Point Pry Bars (60-inch [1 500 mm])
- Claw Wrecking Bars (3 foot [1 m])
- Hacksaws (Heavy Duty)
- Carbide Hacksaw Blade sets
- Crosscut Handsaws (26-inch [650 mm])
- Cribbing & Wedge Kit
- Bolt Cutter
- Scoop Shovel "D" Handle
- Shovel, Long Handle, Square Point
- Shovel, Long Handle, Round Point
- Framing Hammers
- Tri or Speed Squares
- Carpenter Belts
- Stock of nails
- Tape Measures
- Duct Tape
- Building Marking Kit
- Axe (Flat Head)
- Axe (Pick Head)
- Tool kit (required to maintain and repair cached equipment and tools)

Medical equipment:

- Stocked First Aid Kit
- Stocked Emergency Medical Care Kit (including advanced life support equipment if the team is trained to utilise them)
- Blankets (Disposable)
- Backboard with straps

Rope access equipment:

- Kernmantle rope, static (150-foot x 1/2-inch [45 m x 13 mm])
- Friction Devices
- Carabiners (Locking "D" 11 mm)
- Camming Devices
- Rescue Pulleys (2- or 4-inch [50 mm or 100 mm])
- Complete litter stretcher pre rigged
- Webbing Kit
- Edge Protection Devices
- Pick-off straps
- Rope rescue harnesses (professionally manufactured)
- Steel Pickets (1-inch x 4-foot [25 mm x 1.3 m])

Rescue equipment

- Chain saw (regular)
- Hydraulic jack set

## 2. USAR Medium Operational Level

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

Hand tools (additional):

- Bolt Cutters (Heavy Duty, 50 mm)
- Shovels, Folding, Short
- Haul Buckets (Metal or Canvas)



Rope access equipment (additional):

- Kernmantle rope, static (90 m x 13 mm)
- Kernmantle rope, static (6 m x 13 mm)
- Rescue Pulleys (50 mm or 100 mm)
- Etrier / Daisys chain set

Rescue equipment (additional):

- Chain saw (concrete)
- Hi-lift jacks
- Lifting bag set (including spare air cylinders)
- Generator (5 KW)
- Floodlights (500 W)
- Extension Cords
- Junction Box (4 Outlets)
- Rotary rescue saw (300 mm)
- Rotary rescue saw Blades [300 mm] Carbine Tip)
- Rotary rescue saw Blades [300 mm] Metal Cutting)
- Rotary rescue saw Blades [300 mm] Diamond, Continuous Rim)
- Pressurized Water Spray Can
- Rotary Hammer (38 mm)
- Rotary Hammer Bit Kit
- Anchor Kit
- Saw, Electric w/12 blades, metal cutting & 2 carbide tip. (101/4-inch [256 mm])
- Reciprocating saw w/12 wood blades and 18 metal blades

Come-along / chain cable winch

- Chain set
- Demolition hammer, small
- Demolition hammer, large
- Electrical detection device
- Ventilation fan
- Air monitoring device

Shoring equipment:

- Stock lumber / timber
- Hard shoring / screw jacks, pairs (38mm, including stock pipe and cutter if using screw jacks)

### 3. USAR Heavy Operational Level

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

Shoring equipment (additional):

- Ram set powder actuated nail gun (w/150 red charges)
- Stock ram set nails w/washers (65 mm)
- Stock ram set nails w/washers (90 mm)
- Green stone wheel (to sharpen carbide tips on tools)
- Tri or speed squares
- Framing hammers (0.7 kg)
- Carpenter Belts
- Level (150 mm)
- Level (1.3 m)
- Nail gun, pneumatic (framing type, 6–16 Penny)
- Stock nail gun nails (8-penny)
- Stock nail gun nails (16-penny)

Rescue equipment (additional)

- 3.1 Self-Contained Breathing Apparatus (SCBA), with a Personal Alert Device and one spare cylinder
- 3.2 Supplied Air Breathing Apparatus (SABA) Umbilical System w/escape cylinder & 75 m of hose
- 3.4 Tri-Pod (human rated, 2.3 m to 3 m w / hauling system)
- 3.5 Full-body rope rescue harnesses
- 3.7 Rotary rescue saw 400 mm w/10L fuel can
- 3.8 Stock rotary rescue saw blades (400 mm diamond, continuous rim)

- 3.9 Stock rotary rescue saw Blades (400 mm carbide tip)
- 3.11 Canister type respirators
- 3.12 Stock replacement canisters for respirators
- 3.18 Rotary hammer (38 mm)
- 3.19 Rotary hammer bit kit
- 3.21 Drill (38 mm], Variable Speed)
- 3.22 Drill bit set (steel, 3 mm to 15 mm)
- 3.23 Drill bit set (carbide tip 6 mm to 15 mm)
- 3.25 Rebar cutter (25 mm Capacity)
- 3.26 Cutting torch
- 3.30 Extrication stretcher for confined areas
- 3.55 Technical search devices

## ANNEX J: 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 <sup>3</sup>	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

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 <sup>3</sup>	Pallet qty. 224 x 318 (cm)	Desired runway length (ft)
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
C130 / L-100-30	583	23	1,780 x 310 x 260	300 x 280	120	6	6200
MD-11F		90	3,800 x 500 x 250	350 x 260	365	26	n/a

**TABLE 1.—TYPES OF HELICOPTERS TYPICALLY USED 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.

## **ANNEX K: LIST OF ACRONYMS**

ALS	Advanced Life Support
BLS	Basic Life Support
BoO	Base of Operations
ETA	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



## ANNEX L: 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