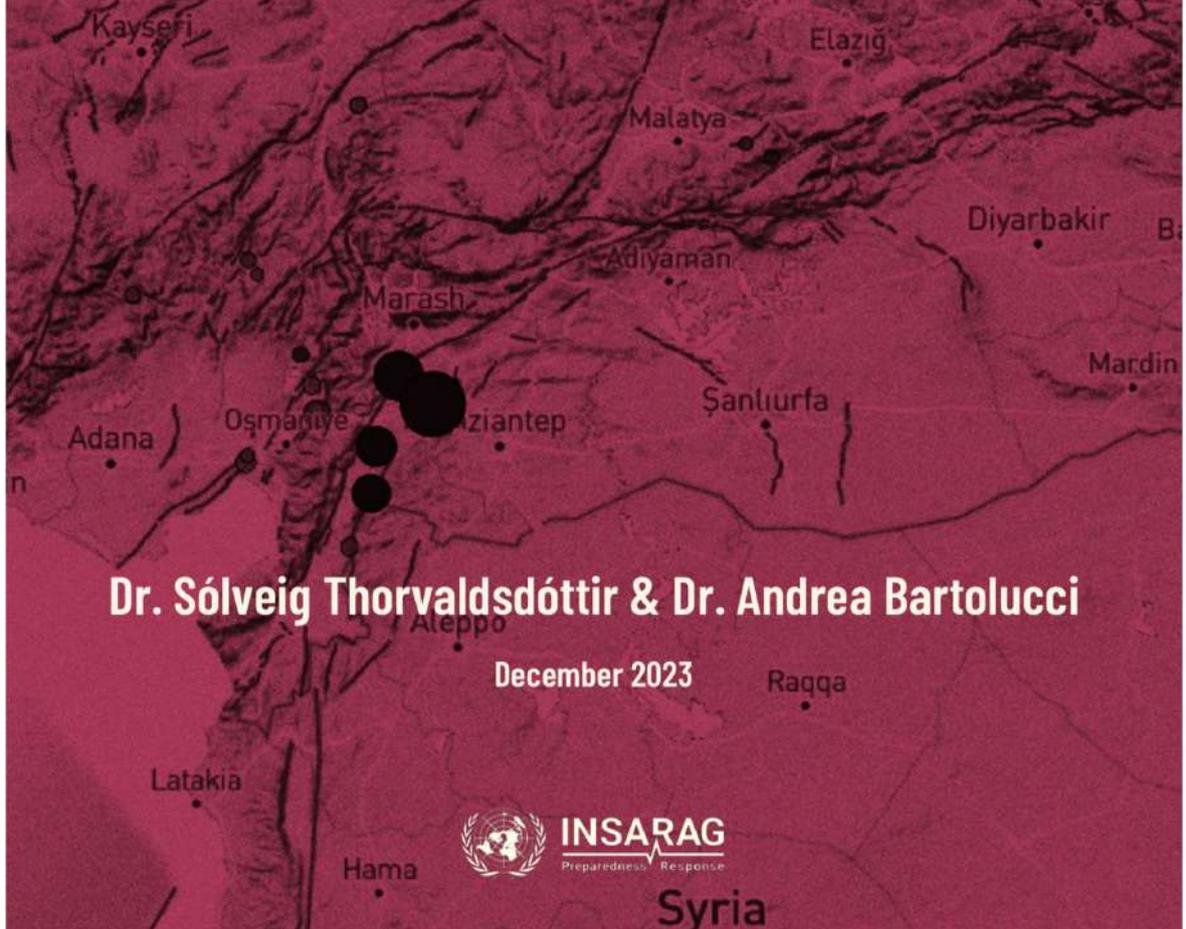


AFTER ACTION ANALYSIS & RECOMMENDATIONS FOR INSARAG

Based on the response to the February 2023 Turkiye earthquake

Turkey



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INSARAG
Preparedness Response

Syria

Acronyms

AFAD	Turkish Disaster Management Agency
AOR	Area of Responsibility
ASR	Area, Search, Rescue
BoO	Base of Operation
BtR	Beyond the rubble
E-DACC	Engineer Damage Assessment Coordination Centre
EMT	Emergency medical team
(UN)ERS	Emergency Response Section
(UN)DSS	Department for Safety and Security
ICMS	INSARAG Coordination and Management System
INSARAG	International Search and Rescue Advisory Group
LEMA	Local emergency management authority
(UN)OCHA	United Nations Office for the Coordination of Humanitarian Affairs
RDC	Reception and Departure Centre
SCC	Sector Coordination Cell
UCC	USAR Coordination Cell
UNDAC	United Nations Disaster Assessment and Coordination
WG	Working group

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Executive Summary

The massive earthquake in Türkiye on the 6th of February 2023 led to the largest response by the INSARAG community in its 30-year history. Within hours USAR teams from all over the world were mobilizing due to the fastest call for international USAR assistance ever made. Approximately 5000 rescuers within 90 teams worked intensely to save 300 lives during the lifesaving phase, and some stayed longer.

The event provides an opportunity to review the INSARAG Guidelines, Handbooks, team training and their compliance in a situation where the teams were being truly tested. This report provides recommendations from an analysis of key documents that were created during and after the response. The work on the report started in the spring of 2023 and stopped a few days before the INSARAG Review Meeting in Qatar in October 2023.

The topics of recommendations are derived from a summary of topics raised by the USAR teams. While other actors are mentioned, such as UNDAC and LEMA, this report is not a reflection of their activities in the response (which would require another study) but are included to address best practices regarding collaboration. The topics are:

1. INSARAG Guidelines
2. USAR coordination
3. LEMA relations
4. Logistics
5. Information management
6. Medical
7. Safety and security
8. Teams' responsibility
9. Training
10. Compliance and commitment through IEC/Rs

Under each topic are numerous sub-topics, as depicted by the Table of Contents. A short summary is provided of the issues raised in relation to the sub-topic, and in some cases the authors and reviewers have added information for context. Most of the comments from teams described problems or challenges teams faced, less was provided on direct recommendations. Direct recommendations were collected, and authors have attempted to convert some of the information into recommendations. The results were then used as a basis for new ideas on training and collaboration, and to answer six questions provided by ERS for a focused review.

The overall conclusion is that the INSARAG network is a highly efficient system that can mobilize thousands of people within hours and is effective in saving lives. It can also be concluded that the network has to constantly train and review its system and ensure that training is always up to date with updated in procedures. One of the common most issue discussed by the teams was the topic of flexibility of the procedures and adaptability of rescue workers and coordination staff. There is always a danger of overplanning beforehand, of locking procedures and decisions into a box that does not fit the wide diversity of situations on the ground, especially when the response missions are few and far between. The recommended solution is to increase the diversity of training scenarios, i.e., to train multiple scenarios that reflect different situations on the ground. To help trainers to develop multiple scenarios, the concept of a "scenario-matrix" has been developed (Annex 4).

In order to facilitate next steps, a table is presented in Annex 4 that identifies which INSARAG Working Group is expected to take the lead in identifying gaps in the recommendations herein and in converting the recommendations into actions plan. In some cases, there is more than one WG assigned to a topic, and therefore they are expected to address the recommendations from their perspective, but also to collaborate on the issue. These are suggestions and WGs are expected to refine the table during the WG pre-meetings of the Türkiye Earthquake Response meeting in Qatar in October 2023.

There is an opportunity here to use the successes of the Türkiye response to improve on the details of the INSARAG system. The expectation is that the participants at the October Qatar Review meeting will leave with a plan that includes what the WGs will do, what ERS will do, what the regional groups will do, what the teams will do, and with a list of 3-5 priority items for each of the 10 topics above, with a timeline.

1 Introduction

The purpose of this report is to be a basis for discussion within the INSARAG network and its partners on lessons learned from the 2023 earthquake response to Türkiye. Its content is a reflection of the comments made by participants in the 2023 Team Leader Meeting in Singapore (written into the Padlet App), by teams in their post-mission reports, information shared on the VO, and teams experience of using the ICMS software. The report is not a historical account of what happened; that would require an investigative inquiry, which was beyond the scope of the analysis.

The vast majority of the information provided in the sources identifies what needs to be improved but with little guidance on how to improve it. The authors have therefore attempted to convert views and opinions into recommendations. Draft versions were sent to over 15 reviewers, including members of the Hatay UCC and ERS, whose comments and discussions are greatly appreciated. The authors have supplied additional context for clarification. All reviewers are thanked for contributing to the content of this report.

Approximately 5000 people from 90 international USAR teams participated in the response, therefore there are approximately 5000 views on what happened, what went well and what could be improved. The report is not intended to cover all views, only the ones that were highlighted in the information provided to the authors and augmented by the reviewers. It is an analysis of opinions, impressions, and recommendations and set into context to the authors best ability. The reference to teams or USAR teams is to international teams or to both national and international teams; the distinction should be clear based on the context.

The topics are ordered so that those pertaining to the INSARAG Guidelines are first, and those that pertain to USAR coordination (and its Handbook) are second. LEMA relations are addressed next. LEMA's role in logistics is critical to the operations, so the theme of LEMA continues by placing Logistics next. From there the topics move on to information management, medical, safety and security, and teams' responsibility. All of above requires training, so the next sub-section is on training. Finally, if anything is to be accomplished, the teams have to comply with INSARAG Guidelines and demonstrate their commitment through IEC/Rs, therefore, the section ends on compliance and IEC/Rs. Based on the recommendations and reviewer comments, ideas for new collaborative groups and training were born, and listed in the following section. The report ends with answers to six questions of an investigative framework provided by the INSARAG secretariat to the author. The authors used the content of section 3 to answer the questions.

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As can be expected in a mission review document, there is more in the report about what can be improved rather than praise for what went well. Work lies ahead in unpacking issues and reaching consensus on how to move forward. The authors wish all of the INSARAG community the best in future work in keeping the INSARAG network strong.

2 Methods

The sources of information from USAR teams used in this report were:

- Answers to questions presented to participants in the 2023 Team Leader Meeting (TLM) in Singapore held from the 28th February to 2nd March 2023. The TLM commenced only 22 days after the main earthquake in Türkiye, so the response was fresh in people's memory. A digital app („Padlet“) was used to collect answers from 6 groups who rotated between 6 breakout rooms. The different rooms addressed the following topics: USAR Operations, USAR Coordination, Logistical, Localization, Information Management, and IEC-R. The files are available on www.insarag.org.
- Team post-mission reports
- Information posted on the VOSOCC.
- information from ICMS.
- Reviewers

The analysis consisted four key drafts and the following eight steps:

1. The first question was, what information do the answers in the Padlets contain? The first step was therefore to convert the information in the Excel files produced by the Padlets that was aggregated based on the 6 break-out groups to being aggregated based on each question.
2. The second step was to move the information into a Word document and sort based on similarities, until a pattern started to emerge on which topics and sub-topic were representative of the content. These are the basis for the structure of section 3.0. In other words, the topics emerged from analysing the information, they were not pre-defined. This created a 120-page document of notes.
3. Step three was to compare the content of the Post Mission Reports (received prior to the given deadline) with the content in the Word document. Much of the information was, unsurprisingly, similar. Information that was not already included in the Padlet information or shed new light on the Padlet information was added to the Word document. Only limited Information relating to individual teams was included (e.g., our team needs to do more training). Information from other documents, including from ISG; Humanitarian Partner Network Week, UNDAC members, were added to the Word document.
4. Step four was analysing the content of the communications uploaded on the VOSOCC and the structure of the VOSOCC. The was done by noting the changes to the structure of VOSOCC that were made during the mission, attempting to categorise what teams were posting, where it was being posted, who was posting the information, and the appropriateness of the content based on the headings.
5. Step five was to analyse content on ICMS. Due to various reasons (e.g., high volume of life-saving operations in the beginning of the response, lack of internet connection, ICMS not structured for flexibility), the information collected through ICMS does not exactly match the activities that occurred. It was decided to not develop graphs from the information, as they could be misleading. However, the information was studied and prompted questions that inspired recommendations.
6. Step six was to summarize the content for each issue under a sub-topic into a paragraph or so and to develop recommendations, to consider new collaboration and training, and to answer the focused review questions.
7. Step seven was a review process where various individuals and groups were asked to review the recommendations and expand on them or add new recommendations. Therefore, while the topics and the comments are all derived from the information from teams responding to Türkiye, the recommendations come from a larger audience.
8. Step eight, the last step, was to develop a task-table for Working Groups and ERS.

3 Comments and Recommendations based on information from USAR teams

3.1 INSARAG system as defined by the INSARAG Guidelines

3.1.1 Speed of mission activation

Summary of comments and context

The speed of the mission, especially the way it starts, is critical for life-saving opportunities. The request from AFAD to OCHA and the notification on the VOSOCC was swift resulting in fast deployment of many teams. Mobilization must be triggered quickly and trained. Teams may decide to mobilize (get ready to deploy) in parallel to the decision-making process of deciding whether to deploy in order to speed up the deployment, and then stand-down if it is decided not to deploy.

Recommendations

Procedures for swift information sharing and expediting the decision-making process immediately following an event should be regularly reviewed to keep them up to date and train new staff based on staff turn-over rate.

This should be done at three levels:

- The LEMA in disaster prone countries in collaboration with OCHA/ERS
- OCHA
- Teams and their donor organizations

Knowing what information is key to the decision-making will help to facilitate decisions to deploy:

- Perform a study that identifies information categories required for fast decision-making in order to speed up mission activation. Share the results with LEMA of disaster-prone countries, OCHA, international USAR teams and their donors.
- The speed of decision making often differs depending on the diplomatic relationships between the affected country and offering countries. Donor countries that invest a lot for Disaster Risk Reduction and Disaster Management already have a good relationship and may be accepted faster.
- Contexts and challenges vary, so any study will need to study multiple countries.
- Internal procedures also differ based on how bureaucracy works in the country. The study should include countries that are already conducting internal reviews to make this process faster.

3.1.2 Flexibility /Adaptability and ASR levels

Summary of comments and context

The operations showed that USAR operations take many forms and are not always linear from ASR1-4. The teams reported that during the first few days they were conducting live rescues across many sites. Due to the life-saving operations, many teams conducted ASR3 and ASR 4 before ASR1 and ASR2 for the first 3-5 days. This surprised some teams who had trained ASR1-4 as a linear process. However, the INSARAG Guidelines clearly state that the ASR levels are not necessarily performed in a linear manner. For example, Manual 2B, page 30 states the following:

“USAR operations are divided into the five levels listed in the table below. These levels are defined as sequential activities, but, in reality, teams may receive assignments in any order. Especially in large scale operations where LEMA identifies worksites before teams arrive. Or when new areas are being opened throughout the response. Hence different levels of work are being carried out in different areas of the incident at the same moment..”

The processes in the INSARG Guidelines are applicable to all types of situations that teams may face in the field, from many collapsed building to a few, from many easily saved victims to mostly deeply entombed victims, to high LEMA support to no LEMA support, etc. Also, there may be situations where there is no functioning LEMA and no operations have taken place prior to the arrival of the INSARAG teams, which is the worst-case scenario the teams need to plan for. Here, teams may have to start with ASR1 operations to identify hot spots and determine sectors. However, the teams could also respond to a country where LEMA is highly active and well

organized and has already performed ASR1 and 2 and assigns teams directly to level ASR3 and 4 operations. Additionally, teams may face situations that are a mixture of the two extremes, where some teams are working on ASR 3 and 4 and others on ASR1 and 2. The challenge is on the coordination cells to collect information on the situation on the ground (from OCHA, LEMA, media, teams in the field, locals etc.) and design a response based on the situation and the strength of the teams; it is incumbent upon classified USAR teams that they utilise the USAR coordination methodology. ASR1-4 are tools (different types of assignments) not a procedure, tools to be applied and adapted to different situations. However, the mission showed that many teams only train simple scenarios that require linear response.

Incoming teams received their designated area from LEMA at the RDC's or at their point of entry. LEMA decided that the UCC should be in Hatay. The UCC developed a plan of action based on the initial reports of a ASR2, performed by two teams, which reported that the number of live victims was too high compared to the available international USAR team resources, that a full ASR 2 would have taken too much time. The unanimous decision was made by all TLs present at the first UCC meeting to start with ASR3-4 simultaneously and work with zones (which had been created based on neighbourhood) in the city most and prioritizing the most effected neighbourhoods.

To demonstrate the logic and flexibility of the decisions, and adherence to ASR1-4, the following is a more detailed account of the ASR1-4 in Hatay:

Coordination

- ERS requested the first arriving full USAR team to support the RDC and then later to manage the UCC.
- ASR1 Wide Area Search: preliminary survey for further planning including geographical hotspots
 - LEMA had done a preliminary assessment and knew where the geographical hotspots were and at the RDC's/airports, LEMA sent the teams to these locations.
- ASR2: Work-Triage Assessment: identify viable worksites.
 - UCC: Sent recce teams to collect work-site information, who brought back information about the overwhelming number of buildings with easily accessible live victims, compared to the available international USAR teams.
 - UCC: obtained assistance from local fire fighters on how to divide the city into graphical areas (neighbourhood boundaries) and who helped identify priority neighbourhoods.
 - Each team was assigned a high priority neighbourhood.
- UCC TLM meeting
 - At a UCC meeting, the TLs agreed unanimously to complete sites using ASR 3 and 4 that would take 4 hours (effectively reducing first priority buildings to 4 hours instead of 12).
 - TLs agreed that filling in Work-Site Triage forms would slow down life-saving operations.
 - The only information available in the first 1-3 days was information made available by the teams returning from the worksites was available to the UCC .

Activity within neighbourhoods

- ASR2
 - Within their assigned neighbourhoods, the teams conducted a rapid ASR2-ish before starting on the priority worksite. In practice, this meant walking through the assigned streets and start working on the building that they, based on their experience, deemed was of the highest priority.
- ASR3: Rapid Search and Rescue
 - Undertaken
- ASR4: Full Search and Rescue
 - Undertaken at the same time as ASR3, as situation called for.

Recommendations

- Interview experienced teams to help outline
 - Critical information needed to respond
 - Helpful information

- The INSARAG Guidelines outline in great detail definitions, purposes, who is to carry out what and when, INSARAG tools, and outputs of ASR levels. These details can be considered as a useful training tool to gain insight of options to undertake during that ASR level. However, every disaster will be different, therefore UCC staff and other coordinators will have to decide how and when to deploy wide area search, work-site assessment, rapid and full search and rescue.
- The ASR2 description in the INSARAG guidelines is very detailed. There may be situations where the UCC/SCC simply wants to send teams into the field to collect specific information.
- USAR coordination training must include a large variety of different scenarios, such as different numbers of collapsed buildings, number of buildings of a given triage category, the activities pre-performed by LEMA, and other varieties of a situation, for teams to develop coordination skills.
- UCC staff members need to be trained to direct teams towards different levels of information collection based on the needs on the ground, and in support of LEMA leading the response.
- Teams need to be trained on receiving assignments that are adapted from the details in the INSARAG Guidelines
- Teams need to create more flexibility in their training in order to develop skills in being adaptable to the different situations on the ground. For example, to change the structure of their teams. For example, teams may need to be able to split their units into smaller assessment teams in order to cover the assessments faster and find a greater number of potential live rescue sites faster. This brings up questions:
 - Are teams structured, trained, and tested in the IEC/R so rigidly, so they have difficulty thinking out of the box?
 - Do all assignments fit into the detailed descriptions of ASR1-4?
 - Are financial resources needed to create such flexibility, like splitting up teams in small units?
 - Do all teams have these financial resources, and if not, is it OK that some teams are more flexible than others?

3.1.3 Building Marking

Summary of comments and context

Building marking is the oldest and most basic communication tool within INSARAG. In some cases, structural and victim marking were not used, nor were other tracking methodologies due to social and cultural issues. Teams reported difficulties on finding places to mark severely collapsed buildings, how to mark buildings when there were so many buildings, and that locals changed the markings. Some teams reported that it was almost impossible to perform in very damaged buildings. However, no suggestions were offered on how to change the current building marking system.

Recommendations

- Review the building marking system,
 - List the challenges of marking building, to properly understand the problem, and more easily identify solutions.
- Review whether ASR2 marking can be much simpler and different from ASR3 and 4 completion.
 - This could be so simple that every non-INSARAG teams could understand
 - Explain it to LEMA and they can also explain it to national teams
- Evaluate possibilities of using stickers on buildings searched.

3.1.4 Triage and survivability in voids

Summary of comments and context

Some teams indicated a potential need to re-examine the accepted definitions of "survivable spaces" and "survivable time frames", the structural triage flow chart and collapse/damage patterns. While some teams use only pancake, lean-to, and V-shape, others use more detailed information outlined in the UC handbook (5.8.2. Vol II, Man B). Some teams believed that C category buildings may have been viewed having lesser importance due to complications in triaging them.

One of the best ways to relay information about buildings is through photographs. With the development of digital tools, photos can be use more than they have in the past.

Recommendations

- In order to re-examine the accepted definitions of "survivable spaces" and "survivable time frames", and the structural triage flow chart and collapse and damage patterns, current practices of triage need to be studied. The INSARAG Guidelines has two orders of priority for building triage, listed below, where the second order is of particular important to the re-examination.
 - First order is the Triage Categories A-D, based on victim information and expected time periods for extrication (5.8.1. Vol II, Man B).
 - Second order is based on building information and operational constraints for when victim and extrication information is not enough. (5.8.2. Vol II, Man B)
 - More specialist training for building related team members in 2nd order.
- Use photos
 - Include photos or images when collecting information on buildings for triage (can be inserted to ICMS). Photos may reduce the need to fill in information on forms or ICMS.
 - Engineers should be included in discussions on best practices for how best to use photos for triage and operations. Engineers and building specialists probably read more into photos and information about building collapse.
 - Make better use of the photo options in ICMS, like a standardised process. If internet is a problem, download images when returning to BoO.
 - Address the need for UCC/SCC to have photos, or whether this is too detailed information and is to be passed on to teams that are being assigned a work-site or work-area.
 - Address bandwidth issues in using photos.
 - Create a documentation system of how to work with photos
 -
- Research more about survivability
 - Learn more on the survivability of people in rubble, in order to direct search and rescue operations.
- UCC/SCC cannot triage a large number of buildings - what is a sensible amount?
- Forms are too complicated for ASR2:
 - Identify minimum info needed on form vs speed in collecting. Will different size events, different amount of A,B and C building require more information? Do C buildings require more information about voids and stability, where 2nd order triage is needed?
 - Simplify to the degree that we can always go/move forward in the mission.
 - Reduce information by evaluation what decisions are you trying to take based on the information on the form vs. what decisions you make when you get there.
 - It is enough for UCC/SCC to get filtered information? Contact teams in the field to get more information. UCC will be overwhelmed with detail. Trust the teams that are in the field. However, If the victim information very similar on many buildings, you will need more information to determine triage.
 - Take into account the ASR2 can be split into a parts and done in a sequence with different objectives and performed by different individuals at different times. Is an increasing level of information needed and is it shared with a smaller group (i.e., with UCC/SCC vs. team), therefore creating flexibility?
 - What information needs to be shared: what is internal to the team for their operations and what is between teams via UCC/SCC.
- Don't plan for the last war
 - Brainstorm on different circumstances that a UCC/teams could face
 - Brainstorm on different approaches needed for the different circumstances
 - Design forms from there.

3.1.5 New roles and strengthening roles

Summary of comments and context

Suggestions for new roles or further development of existing roles were provided by the teams: Incident back office back office where the UCC/SCC can get support (possibly linking to an ICMS back office). Logistics coordinator in UCC/SCC, including BoO management. Further develop the role of OCHA ERS as information source during a response, who based on factsheet and travelling plans could pre-task INSARAG teams with coordination functions/tasks to perform on arrival. Team home-offices have to answer their phones 24/7 and see themselves as a key partner in the mission. Due to connectivity problems in the area, the UCC/SCC must be able to contact team home-office if they cannot reach a team. Include home-office in UC training courses, EREs and IEC/R events

Recommendations

Discuss the need for creating or strengthening the roles listed above.

- Incident back office for the UCC (teams are already using their own countries as back office support).
- Further develop the concept and implementation of creating ICMS software back-offices to be in every region.
- Further develop the role of Team home-offices. Countries would be encouraged to have an English-speaking person in their home-office. If it is not possible, then at least such a country would be aware of this option.
- Logistics coordinator in UCC/SCC. This function is already in the UCC and in the RDC under Support. The recommendation is increase training in this area significantly, on issues how to get in-country support and how teams can support each other.
- Further strengthen the role of OCHA ERS in USAR operations, deployment, and clarify their role for international teams so they fully understand the role of ERS at the beginning of a mission.

3.2 Phase in, manage, and phase out a USAR coordination system

3.2.1 General

Summary of comments and context

A number of issues were raised on general USAR Coordination. These are converted to recommendations below.

Recommendations

- When building a USAR coordination system, decisions need to be made on the details of RDC and UCC, e.g., the size of the entity and its needs. According to the UC Handbook, the managers ensure that there are sufficient staff members and equipment to run the RDC. The volume and frequency of teams arriving and the need to operate 24 hours a day will dictate the staffing required. Develop procedures to help early estimates and plans on the size of the staff, its needs and the need for rotation and additional support from USAR teams, throughout the mission.
- It would benefit coordinators to develop their skills to:
 - Estimate the need for RDC staffing and equipment at any given time and for restaffing if needed.
 - Estimate the need for UCC/SCC staffing and equipment at any given time and for restaffing if needed.
 - Explain to LEMA that coordination needs people, structure, and logistical support, even on their side.
- Develop procedures for early planning rotations of RDC-UCC-SCC staff, as there will be changes of teams in the field (some come early and leave soon, or leave later, others come later). This is particularly important during intensive missions with high rescues if international USAR teams are depleting their resources and decide to leave, taking their coordination staff with them.
 - Train and prepare to be as self-reliant as possible, since one cannot always rely on outside help. It is more efficient when LEMA, UNDAC and internet is functioning well. RDC/UCC/SCC show initiative in reaching out to LEMA if LEMA is not there, or to UNDAC.

Review the Coordination Handbook or training to include:

- The INSARAG Guidelines, UC Handbook and/or www.insarag.org should include detailed explanation on what happens in the beginning of a mission when building a coordination system and how coordination gaps are identified and filled. This includes the activities by OCHA/ERS

Coordination teams.

- Consider deploying UC teams from non-deployed INSARAG USAR team as best practice, either to manage coordination cells, or as support to existing ones.
- Conduct an inquiry into the feasibility of creating RDCs/UCCs by selecting and training suitable country combinations.
- For the long-term, INSARAG can consider setting up a USAR Coordination Task Force to share the heavy workload of international USAR teams in coordination.
- Any coordination staff or support staff has to be self-sufficient, like any other international USAR team, requiring their own BoO.

Improve the structure of folder on insarag.org to make forms and checklist easier to find.

3.2.2 RDCs

Summary of comments and context

The first international USAR team members arrived from Istanbul (had been there for training) and set up an RDC. First arriving full USAR team assisted in the RDC. An interpreter offered their assistance to the team and helped provide buses from the city to transport the teams at the airport to the affected area. LEMA directed where the teams should go.

If the RDC fails, the whole mission might fail. It doesn't matter who does it, meaning teams, UNDAC or LEMA. Consideration should be given to train and prepare for multiple RDCs.

Recommendations

Need to take into account

- Travel time to the affected area into account (the UCC will not be set up until teams arrive in the affected country, RDC manages until then).
- Finding the right people to talk to
- Change RDC in UC Handbook to RDC-USAR-desk to clarify that USAR teams are managing RDC for USAR. Other desks are established to manage other types of assistance (humanitarian sectors, EMTs), as needed.

3.2.3 UCC

Summary of comments and context

The first team had arrived in different airports, their coordination staff not being at Adana Airport. When asked to set up and manage the UCC, the team, in good cooperation with the teams involved, handed over its task in the RDC to a new arriving team. The team commandeered the bus it used for transport to conduct UCC operations until the team has set up the UCC sent, making the UCC operational from the time of arrival to the affected area.

A number of issues were highlighted in the information sources regarding UCC. These are converted to recommendations below.

Recommendations

Review the Coordination Handbook or training to include:

- Training to include how to build a coordination system using different types of scenarios, from the time of the earthquake until it is operational.
- Sharing information within a UCC needs to be structured, such as monitoring emails, VOSOCC, and ICMS
- Logistical issues in a UCC/SCC and RDC
 - Wi-Fi, email, phone (handheld and satellite)
 - Online chat group (such as WhatsApp, WeChat, Microsoft Teams, Signal) need to be set up so that all are linked together via the internet and can easily communicate.
 - Email address
 - How to use the VOSOCC for reporting and when is the changeover to reporting using ICMS

- Digital tools
 - Staff allowed temporary user right to delete repeated forms in survey123.
 - Staff allowed to edit VOSOCC.
- Team assignments need to be made for multiple scenarios of damage and LEMA priorities
 - Team assignments can cover different geographical areas, for example:
 - i. One work-site
 - ii. A work-site within a work-site
 - iii. A work-site with other teams
 - iv. Work-site information collection for UCC/SCC (ASR2)
 - v. Work-areas when teams are assigned an area of responsibility (e.g., streets, neighbourhoods).
 - Team assignments can be of a different nature, for example:
 - i. One or more of the ASR1 -4 levels
 - ii. ASR5 and Beyond the Rubble
 - iii. Other types
 - Other factors that affect team assignments
- Estimating the number of teams needed in the field
- Consider using team members available for CC's for ASR2 missions, if needed, in addition to or in support of the ASR2 missions that other teams are performing.
- Improve procedures and training on handovers, both giving and receiving.
- Address the possibility of ERS having the option to establish a virtual UCC to talk to the teams on platforms like WhatsApp. Develop procedures of a virtual UCC to ensure that it does not cause conflict with UNDAC/OSOCC or confusion about lines of communications.

3.2.4 Sectors

Summary of comments and context

The UC Handbook outlines how sectors are a tool of the UCC to manage its span of control:

“When a small number of teams responds to a mission, they are directly coordinated by the UCC. However, as the complexity of a mission grows due to the arrival of more teams, increased areas of operation, and/or direction from LEMA, the UCC may decide to divide the operations within the affected area into geographical sectors to increase the effectiveness of the USAR coordination.”

The initial setup by LEMA was a UCC in Hatay, and four sectors in four cities. Later the UCC decide to create a sub-sector with the UCC sector, named SCC5. All the remaining sectors were established by the UCC in Hatay, in collaboration with the UNDAC liaison in the UCC. All of these were small sectors, even down to one international USAR team working with a national team. The strategy employed by the UCC was that every single international USAR team in Türkiye that the UCC knew of would be linked into the USAR coordination system. Therefore, if a team was on its own, it would be its own sector coordinator and take on the responsibilities of a sector coordinator and would be in direct contact with the UCC. This strategy greatly helped the UCC maintain its connections with all teams, directly or indirectly. The UCC had daily contact with the SCCs. To help the sectors communicate with their own teams, the UCC created a space on the VOSOCC dedicated to each SCC. This also reduced the number of times that the UCC and SCC needed to have direct contact, as they could retrieve information from the VOSOCC. In this way the UCC had oversight of the entire operations. The weakness in supporting the teams was mainly two-fold. The UCC did not have strategical guidance from the LEMA on how to move the operations forward, so all decisions and support was based on minute-to-minute information. There were problems in the beginning regarding connectivity, but that improved with time. As the operations in different sectors gradually ended, first the smaller sectors and then the larger one, the UCC closed the sectors. The last remaining sectors were handed over to AFAD.

Coordination of SCCs

- Sectorization is a tool for the UCC to manage span of control.

- Daily contact with the assigned SCC is important using on-site meetings or VTC meetings.
- Later: never use letters for sectors, always numbers due to ability to expand. And we will never run out of letters and be looking at the sector number, we know in which city it is.
- How to deal with teams that split up and work in more than one sector. It can be confusing for UCC if teams have the same ID in multiple the sectors. Break off groups could be given sub-numbers. For example, a team that has two break outs and works in three sectors would have three IDs: XXX01, XXX01.1 and XXX01.2.

Recommendations

Strengthen training in being a Sector Coordinator (UC Handbook section 6).

- On when to relocate teams between sectors
- On problems when there are no or limited communication lines between UCC and SCC (i.e., an SCC finds itself with UCC support)
- When to change sector areas or close sectors
- UC training should include processes when LEMA pre-assigns sectors and/or a sector coordination cell. Only teams that are on-site should be assigned as sector coordinators. However, more suitable teams can take over once they arrive, if needed. Teams that are on the ground before the SC arrive, should be trained to start their own SCC, not wait for the dedicated team. When the dedicated team arrives, these teams along with the UCC can decide further arrangements, with LEMA.
- If teams are pre-assigned as sector coordinators, they should contact the UCC ASAP and keep them updated about their location and when they will be able to assume the role.
- Teams that initiate a SCC themselves should contact the UCC ASAP.

3.2.5 Phasing out

Summary of comments and context

The first announcement of closing was on the 15th 11:00 that the USAR Coordination would transition from a Physical UCC to a Virtual RDC at midnight tonight (15th) and teams not demobilizing will be transferred to AFAD for coordination. UNDAC will open and run a Virtual RDC. The UCC put guidelines for the SCCs regarding Demobilization and Mission Summary Forms on the VOSOCC. Later, this decision was changed and announced that the Government of Türkiye would continue to accept international relief teams to support the current disaster and from 16 February 2023, 0001hrs, the UCC will continue to be physically functioning in Hatay. The last life saved by international teams was on the 14th.

Either the UCC staff manages the phasing out of the coordination system or hands over to LEMA. Examples of activities performed during the dismantling of the UC system in Türkiye were: Deciding when to stop USAR operations, supporting donation handovers, collecting mission reports, possibly reactivating RDCs, supporting beyond the rubble activities, and closing SCCs. Of these examples, the most commonly mentioned by the teams was lack of clarity of the end-of-USAR operations (or End-of International-USAR-Phase) or declaration thereof. Support for donating equipment to locals was also requested. See also section on End-of-International-USAR declaration.

Recommendations

Review the INSARAG Guidelines and/or Coordination Handbook to include:

- Are the procedures for the End of International USAR operations declaration clear? Do they need refining? Do they need more training?
- Train how to phase out coordination systems using different types of scenarios.
- Review current guidelines_on End-of-International-USAR declaration to include INSARAG, LEMA and UNDAC.

3.2.6 Working with UNDAC

Summary of comments and context

The role of UNDAC in supporting USAR Coordination is mandated in the United Nations General Assembly Resolution 57/150 of 2002 and states that “Commending the work of the United Nations Disaster Assistance and Coordination teams in facilitating rapid need assessments and assisting Member States to organize the on-site coordination of international urban search and rescue operations”. The UNDAC Liaison is the link to the OSOCC. The role of an UNDAC liaison in an international USAR mission is outlined in the UC Handbook (section 8): Advocacy (be catalyst to OCHA and LEMA and other partners), Strategy (on issues such as end of operations, Beyond the Rubble, etc.), Logistical and other Operational support (share information on health issues, safety and security, logistics etc.)

UNDAC liaisons were situated in the larger SCCs that were defined by LEMA at the beginning of the operations, and in the UCC. The support provided by UNDAC liaisons varied in these locations, the variety mainly stemming from different levels of INSARAG knowledge by the UNDAC members. Further comments mentioned that UNDAC/OSOCC needs to be proactive in delivering information to international USAR teams and should have knowledge on how to use ICMS if they are delegated to support the coordination.

The initial coordination when teams arrive is a critical part of establishing the USAR coordination system. Some UNDAC members deployed with teams. Most UNDAC members travelled by commercial flights and therefore arrived after the first arriving teams. Contact information was put on the VOSOCC while UNDAC members were travelling and caused misunderstanding among the USAR teams. Many teams tried to contact UNDAC members who were travelling to get the latest information, but they could not connect to them or they had no information since the members just got off the plane.

The connection between UNDAC and the UCC is crucial. While the UCC could operate without UNDAC guidance or support, the stronger the connection between UNDAC and UCC the more successful the operations are likely to be, especially if the ties to LEMA are not strong. The UNDAC and INSARAG coordination structures were very large. In all operations, especially in such large operations, the highest ranking UCC and OSOCC manager should be in direct contact and together outline a communication and reporting line between the two structures, including the locations of liaisons in the UCC and in OSOCCs and Sub-OSOCCS.

Expectations of international USAR teams of what UNDAC support entails needs to be better understood. Some teams consulted UNDAC in the decisions to demobilize. The role of UNDAC in RDCs (for USAR, EMTs, and relief teams) needs to be better outlined in the UC Handbook for the international USAR teams.

There is a disconnect between the expectations of UNDAC and INSARAG on the participation of USAR teams in collecting humanitarian information during the period of life saving operations. There is more agreement for the period after the live-saving period. Different expectations can cause tension in the field.

Recommendations

- Meetings and Training
 - Expectations for cooperation between USAR teams and UNDAC must be clearly specified and agreed so that both parties can train its members on their expected role. The USAR Coordination Handbook section 8.0 explains how UNDAC and USAR teams work together. Training teams on this section may need to be strengthened. The same applies to UNDAC members, i.e., there may be a need to train more UNDAC members on the content of section 8.0.
 - Joint meetings and training between UNDAC and USAR coordination cells (UCC, SCC and RDC) to clarify how to work together. As collaboration brings about clarification, it is likely to strengthen the relationship between UNDAC and the teams.
- Clarifications for INSARAG
 - UNDAC outline how they play a key role in safety and security, for example, by obtaining information from UNDSS and LEMA, and brief UCC manager/Team leader meeting. UNDAC can say how they will operate under DSS , but the teams are not seconded to the UNDAC, so will follow LEMA recommendations. In other words, USAR teams see DSS recommendations as considerations for them to use, but not follow if it doesn't follow LEMA announcements.
 - How UNDAC could address political and cultural perspectives of the national country that affect international USAR operations.
 - UNDAC outline how can UNDAC can support UCC logistics function.
 - UNDAC can support/step in when there are issues between teams.
 - UNDAC and INSARAG discuss expectations of USAR teams in collecting humanitarian information during and after lifesaving operations.
- Travel and contacts

- If UNDAC members deployed to the event could travel with teams who have dedicated planes, UNDAC members would arrive at the same time as the team.
- Do not to put contacts of UNDAC members on VOSOCC before arrival. Or least state at time that they will be available.
- Currently UNDAC only has monitoring access to ICMS. It needs to be addressed if UNDAC is expected to understand how it works and support USAR (non-IEC teams)?
- UNDAC liaison needs to focus on getting the right LEMA links
 - Have to be pro-active.
 - Need to have ToRs so people know what to do
 - Don't need someone to manage the RDC or UCC, but as a liaison officer who can think of the operations as a whole.
- USAR teams are sheltering UNDAC team members. How is this coordinated?

3.3 Working with LEMA

3.3.1 Connections with LEMA at every level

Summary of comments and context

While the coordination within the UCC/SCCs and RDCs are critical to successful USAR operations, equally so is coordination with LEMA. As outlined in the UC Handbook (see also figure 1 in Annex 1 of this report), each coordination cell should have a LEMA contact and work closely with them on the operations.

Recommendations

Review the text in the Guidelines, Volume II, Manual B Operations and UC Handbook regarding how to establish a working relationship with LEMA, how to work with LEMA, and how to problem solve regarding LEMA relations while taking into consideration:

- Make the procedures of creating LEMA contacts more prevalent in the tools, e.g., forms or checklists.
- The UCC should verify at the beginning of the operation that the LEMA contacts are functioning, and if not, to seek assistance from UNDAC/OSOCC. If they are not functioning, collaborate to improve them. Local information from LEMA and the affected population is essential, and minor problems can be overcome through assistance from local people, translator and-or LEMA representatives. The relationship will be dynamic and change (and hopefully strengthen) with time. During the mission in some cases Initial coordination was challenging with LEMA but improved with time.
- In large disasters where many SCCs are functioning, LEMA contacts may come from different entities (e.g., AFAD, the governor, Ministry for Foreign Affairs).
- Train situations where UCC/SCC disagree with LEMAs approach (LEMA is always in charge).

3.3.2 UCC and LEMA Connection

Summary of comments and context

The connection between LEMA and the UCC is crucial. While UCC can operate without LEMA guidance or support, the stronger the connection between LEMA and UCC is, the more successful the operations are likely to be. A UCC has two main objectives; to coordinate teams in its AOR, and to create and coordinate sectors in order to manage span of control of the UCC. It can decide to put all teams under sector coordinators in other locations; the situation on the ground will determine such decisions. However, the better the guidance and support on these matters from LEMA on establishing new relationships, the better.

Recommendations

- Increase training for UCC managers on explaining to LEMA that USAR coordination may require significant national personnel and that LEMA links preferably either speak English or use their own translators.
- MFA shut down the operations for 24 hours in one sector. This was a problem that needs to be solved globally. Eventually the need to work together was resolved.
- This is the flexibility that is missing in the training
- Identifying LEMA contacts and establishing a LEMA-UCC/SCC relationship, in cooperation with UNDAC and regional coordinators should be accomplished as soon as possible. No strategical LEMA relations or contacts were established during the operation. On a local (tactical) level some contacts were established but they were not officially sanctioned to fully assist the UCC. No dedicated LEMA presence was available in some instances.

3.3.3 Working with LEMA

Summary of comments and context

Numerous comments were made on working with LEMA. A significant portion were on issues that addressed logistics and are presented in the section on logistics.

Recommendations

- To know when to stop asking for international USAR teams
- Explaining to LEMA how INSARAG coordination works, using the one-pager available in the UC Handbook. This will show LEMA how the RDC and USAR cells are managed, and the support that INSARAG/UNDAC can provide.
- Be briefed from LEMA to better understand local culture.
- Obtaining translators and guides is a team responsibility - LEMA should be asked where and how local translation services can be obtained by the international USAR team - LEMA should not (my view) be required to 'obtain' since there could be times when there is a cost for service.

3.3.4 Managing expectations of LEMA support

Summary of comments and context

Comments from teams on their expectations of LEMA support were many. Teams are working in countries that are suffering a large disruption to their normal activities where normal response capacity, administrative arrangements, etc. may have been severely reduced. The INSARAG Guidelines outline what realistic expectations are from the network to LEMA in order to support the country and not become a burden on it.

Recommendations

Training should focus on managing teams' expectations regarding support from LEMA, as they are suffering a major disaster and may not be fully operational and may not operate as INSARAG teams are expecting.

- Train how to work without a functioning or existing LEMA.
- Train how to seek LEMA support without becoming a burden.
- International USAR teams must train for a variety of situations of coordination structure, from full support to no support, and from no support to an increasing level of support.

3.3.5 Declaring End of International USAR operations

Summary of comments and context

INSARAG continues to follow the guidance that only the affected government can announce the end of the USAR phase. Teams noted that during this deployment, there was no declaration of the end of the USAR operations phase, but there was a thank you message to those leaving, and one of gratitude to those staying. Deciding when to leave is a critical part of the operations. Many teams made their own decision when to leave based on the

trend of opportunities for lives to be saved. A better understanding of the issues regarding making decisions about the end of international USAR operations, and determining demobilization strategies is needed, both by INSARAG and LEMA. This includes considering the strength of the national teams to continue the remaining activities. The issue of how political and cultural perspectives are considered also need to be discussed. USAR operations might continue after all international teams have left.

Recommendations

- Instead of using the term End-of-USAR-Phase, to use End-of-International-USAR-Phase
- Review the current guidelines on the decision-making process for an End-of-USAR Declaration, taking into account the multiple perspectives that need to be considered (life-saving trends, LEMA, national and/or international teams still engaged, etc.).
- LEMA and international coordination need processes that ensure that the need for teams or lack thereof is clear to the teams, so the teams are fully aware of what resources are needed.
- Always consult with the affected government on when to end international USAR operations, as the decision is highly emotional for victims' families.
- Include issues regarding making decisions on announcing the end of international USAR declaration and determining demobilization strategies in training

3.3.6 Donation process

Summary of comments and context

When demobilizing, many teams donated equipment to in-country entities (LEMA, locals, NGOs, to other rescue teams, to EMTs, and others). This is completely voluntary and of their own accord. The teams experienced different channels for this process. Not all donations were accepted, and, in some cases, there was difficulty in finding responsible persons as local receivers of humanitarian aid and donation. Donations included rescue equipment, shelter/tents, medical equipment, generators, food and water. There was a call to donate equipment to NW Syria, which OCHA/UNDAC would coordinate and advise on.

Recommendations

- Add more details in the current guidelines on how to streamline and coordinate the process of teams donating equipment to in-country entities.
- This should include teams notifying as early as possible what they would like to donate, and consider what training is required for those receiving the equipment.
- Many countries, especially those that already are running programs in the affected country, will inform their USAR team on how to divest of these items, which needs to be taken into account in any guidelines.

3.3.7 Beyond the rubble (BtR)

Summary of comments and context

Teams reported that limited BtR activities were accepted, not many activities needed to be done within the scope; very limited interactions; and there should be no BtR during live rescue operations. Some stated that there was no need to get involved with humanitarian help, saying that a lot of other local volunteers were around to cover this. The teams that arrived later/late were more willing to participate in BtR activities. Some teams participated in supporting Relief Distribution. Some team engineers were willing to participate in E-DACC (not reported how long were the engineers were willing to stay). Support for engineering damage assessments and coordination thereof was offered but was not accepted due to Turkish strength in structural engineering.

Recommendations

Despite this being a huge event, there were few requests for BtR activities. Teams should not assume that BtR activities is an action desired by every LEMA, i.e., not to be surprised if it is not required. The call for BtR, will vary greatly between missions.

- Review guidelines to clarify that the concept of “Beyond the Rubble” is a post USAR operations activity for the international teams.
- USAR teams are encouraged to offer relevant support to the government, e.g., relief operations logistics, structural engineers, and
- Teams offering medical support need to register with the Health Ministry, as it is beyond the scope of "USAR medicine" and is offering 'clinical medicine'.

3.3.8 Training of LEMA

Summary of comments and context

As it is recognized that the stronger the relationship with LEMA is in coordination and logistical support, the likelihood for successful missions increase. It follows that the more prepared LEMA is, the better the relationship between INSARAG and LEMA will be. Teams suggest providing enhanced guidance to member states on incorporating USAR coordination principles into national disaster preparedness and response plans, including USAR assessment. The question arises, what is INSARAGs view (or role) on putting their resources into LEMA trainings in earthquake prone countries? Associated with this question is how LEMA integrates national INSARAG teams into their response plans.

Recommendations

LEMA pre-disaster rapid procedures

- Senior government to decide what type of international assistance is needed and when.
- Effective communications and assessments on the ground to have the first picture of the situation as fast as possible. Study what is realistic within 4-6 hours., with 12 hours and 24 hours for different size events.
- Use local teams in RDC/UCC, with readily available equipment to be deployed.
- LEMA needs to have an internal plan on how to activate an international reception plan.
- Plan National or INSARAG EREs in earthquake prone cities
- OCHA regional offices to map how long it takes to move teams in the region to earthquake prone areas and work with regional INSARAG groups.
- Localization needs strong commitment from the government for it to be a success and should be evaluated prior to training.
- Review INSARAG guidelines on expectations of support from national entities during a mission. Is it clear on the self-sufficiency on the teams?
- Local/National Disaster Management Authorities are only a part of a government’s response to a disaster. Ensure that training plans for LEMA includes a whole government approach to disasters, in particular the role other ministries and departments play in USAR, for example department of transportation and ports of entry.
- Strengthening localisation of communities, especially to access challenged locations. Regional groups and OCHA's regional offices need to identify and prioritise a plan of action for outreach.
- Survey USAR teams and donors on their views of spending time and resources on training LEMAs in disaster prone countries on how to make best use of USAR teams. Are INSARAG teams interested in „Preparedness roadshows” to varied levels that deliver multi-level LEMA outreach programs. Would this be part of flexible response/flexible activity.
- The new National Capacity Building WG is well suited to address the issues of LEMA training. The new Capacity Building WG will, in collaboration with ERS/UNDAC:
 - Adapt and localize the INSARAG coordination methodology and concepts to country contexts.
 - Promote capacity development at the national and local levels. National CBWG to lay out the framework, but it is the responsibility of ERS to match donors to national and local capacity building.
 - Actively encourage sharing of expertise and good practices amongst countries and organizations.
 - Receiving international USAR Teams
 - Utilizing national USAR accredited teams

- Should a training package be created for the Resident Coordinator and the Humanitarian Country team?
- The swift governmental request for international assistance/teams helped saved many lives. Strong engagements with INSARAG network, implementing the IRNAP system, strong links with local teams, actors, NGOs is a model for all. IRNAP might need clarification, since some feel this allows carte blanche international deployment permission - this should be clarified at some point that the "recognition" is of the system - not the team.
- Review whether a strategy is needed for in-country INSARAG teams.
- Advocate for national capacity building at all levels
 - as advocated in General Assembly resolution 57/150
 - through the INSARAG First Responder Program.
 - Through the NAP and IRNAP programs, as outlined in the INSARAG Guidelines
 - Strengthening localization, ownership model
- The more promotion of localization, there are more national and regional level exercises taking place in different regions. Do the INSARAG teams have the resources needed to participate in all the events? How can INSARAG (teams, Working Groups, individuals) manage the expectations of providing training for such events? Is it INSARAG's role? Is the current support uniformly distributed across all exercises for example in ICMS training?
- How does OCHA ERS raise all the above with
 - the Inter-Agency Standing Committee (IASC)?
 - the OCHA Donor Support Group (ODSG)?

3.4 Logistics

3.4.1 Topics before arrival

Summary of comments and context

Fast deployments require LEMA to share information on logistics quickly. Teams listed topics that are critical at the beginning of their mobilization, meaning before they leave their country, and could have an effect on whether they deploy or how they plan their deployment.

Recommendations

Review guidelines on logical issues, in particular on how to expedite collecting and sharing information needed by teams to make quick decisions about deployments, to include guidelines for ERS, who are who are in contact with LEMA (and the Humanitarian Country Team, if present) at the very beginning:

- Determine how the information should be shared: through the VOSOCC and/or elsewhere.
- Take into consideration the following information to be shared
 - Airport: Availability of airports, where to land, options, conditions of airports, space for planes to park; Availability of equipment to unload planes.
 - Effects of weather conditions.
 - Customs or border requirements; Quarantine.
 - Local volunteer interpreters available at airport.
 - Transportation arrangements: available cars/buses/trucks; Road conditions; traffic conditions.
 - Access to the area, fuel stations, fuel availability.
 - Technology (availability of communication for phones, internet, satellite).
 - Water availability.
 - Medical issues (medical restrictions and patient disposition.).
 - Heavy machinery availability.
 - Cultural awareness, sensitive issues.
- OCHA person in country to provide safety & security information (provided by DSS) with regular updates.
- Keep in mind that it is not always realistic to expect information or logistical support from LEMA, considering that those who might know may have been adversely affected (missing, dead, injured, without communications)
- Some countries work with their embassies to get this information.

- Consider how to avoid conflicts of getting resources with local rescue operations and other assistance.
 - Be able to give good reasons why this should be prioritized to USAR when the airport is overwhelmed. Especially when training the government as they decide the priority.

3.4.2 Topics upon arrival

Summary of comments and context

Topics of Information provided on arrival in addition to those provided before arrival addressed both what information and from whom

Recommendations

- Review INSARAG guidelines on logistical issues, in particular on how to expedite collecting and sharing information needed by teams to make quick decisions when entering the country
 - Information on the following topics
 - Situation related: Local situation, disaster related information, the affected area, and checkpoint control.
 - Team related: Team safety and welfare arrangements, BoO, safety and security, and medical issues.
 - Where information comes from/how is the information vetted and then distributed to the teams?
 - Directly from LEMA, Humanitarian Country Team and/or DSS
 - OSOCC (see section on working with UNDAC)
 - RDC: Briefings and support
 - UCC Briefings and support

3.4.3 Topics during mission

Summary of comments and context

Teams answered questions on logistical needs with the highest demand that were not solved. Due to the many different locations in the disaster, the different times teams arrived, and the different resourcefulness that the teams show, the teams experience was also different in what worked and what did not. Attention should be given to the negative experiences when reviewing logistical guidelines and LEMA training.

Recommendations

- Review of guidelines on logistical issues and LEMA training should take into account what some teams experienced as logistical support not being meeting, including:
 - Need in country: Gasoline, Transportation, Timber, , Oxygen; hot-cutting and Medical: (Medical supplies, Ambulance with medical Personal).
 - Heavy machinery. Ops were slowed down by the lack of operators not machinery.
 - Translator: Translator didn't say what had been said, free lancing, every team should have at least two interpreters assigned to them, best practice could be Heavy: 8 and Medium four to cover 24-hour operations.
 - Issues on the way to airport: Transport, Accommodation at stops before airport, the transport to the airport was cancelled on last minute by AFAD. So, we had to take care about that by ourselves.
 - At Airport: authorization by customs to do the exportation of the equipment. There were difficulties in finding a place to park the team's plane 1 or 2 days. Insufficient capacity of cargo service in airport. Availability of demobilisation plane and restrictions. Hand packaging / commissioning all Cargo for the plane.
- The above-mentioned review must take into account that
 - Just about everything listed above has to be shown during an IEC/IER, it seems teams were totally relying on LEMA (AFAD), when they claim to be self-sufficient.

- A lot in here that the UCC could provide information on and demonstrates why coordination has to start with the first arriving teams.
- it is apparent that a lot of teams did not deploy with the required number of UC-trained staff who could have started the coordination.
- ICT: requires a lot of training and will always run into problems. Solving it is not just adding a line in the guidelines and saying this is not useful or efficient.

3.5 Information management

3.5.1 Virtual OSOCC

The VOSOCC was used as real-time online coordination platform and allowed for information exchange „early“ during the emergency. VOSOCC has a simple given structure that needs to facilitate the information sharing during the deployment. And it is used by many other disaster response actors, so other activities than USAR is also presented.

Usually, the documents that are uploaded by an USAR team are: a) Team Fact sheet; b) Demobilization form c) Sit rep (it is not a file) d) Maps e) Mission summary; and f) Update about activities.

The use of the VOSOCC by USAR teams and also by other relief team is not always regulated. On many occasions, teams upload the documents in the wrong folder making the information collection very challenging.

- Test the possibility setting up a system to use SMS, WhatsApp, and other messaging applications to send FACT sheets to the VOSOCC/ICMS. This would relieve the need to log onto VOSOCC/ICMS and would help with low connectivity problems.
- Impossible to follow the information on the VOSOCC.
- There are many ways to communicate. We need to have a dedicated ‘chat channel’ somewhere.
- We can’t finalize this type of comms plans until we are in the field.
- We have rules for VOSOCC, but we will always break the rules. If you only have internet access for 10 sec you will take the route that takes the least time, and that may be on the VOSOCC.
- UCC needs to be able to delete information from VOSOCC and to verify info, i.e., have admin rights. Should there be a dedicated person for that? Who should have done that?

Virtual OSOCC statistics

Earthquake occurrence: 6 Feb 2023, 01:17 UTC

GDACS Alert sent on 6 Feb 01:40 UTC (23 min after event)

Virtual OSOCC discussion created on 6 Feb 2023 05:09 UTC (3h 52 min after the event, 3h 29 after GDACS alert)

Alerted rosters

- United Disaster Assessment and Coordination (UNDAC)
 - Alerted: on 6-Feb-2023 08:02 (6h 45 min after the event)
 - First wave: deployed between 6 and 15 Feb (23 UNDAC members, 29 support staff from Atlas Logistics, IHP, iMMAP, MapAction, Reach Initiative, TFS, WFP)
 - Second wave: deployed between 22 Feb and 8 Mar (15 UNDAC members)
- Environmental experts:
 - Alerted on 8 Feb (no info on VOSOCC environmental experts deployed)

Virtual OSOCC information exchange and coordination

- Discussion followed by 2230 disaster managers and related experts from 96 Member States and 296 organizations
- 12 moderators supported the online discussion
- 2520 comments provided by 363 persons
- 833 files uploaded by 201 persons
- 241 relief teams registered by 186 persons
 - Deployed teams:
 - 119 Urban Search and Rescue (USAR)
 - 18 WHO Emergency Medical Teams (EMT)

- 10 Assessment and Coordination
 - 3 Telecoms and ITC
 - 2 Logistics
 - 1 Environmental
 - 5 Other
- Classified or accredited USAR Teams that had uploaded Fact Sheet by 18.2.2023:

IEC heavy	22
IEC light	5
IEC medium	20
NAP/IRNAP heavy	1
NAP/IRNAP light	1
NAP/IRNAP medium	2
Not IEC classified or NAP/IRNAP accredited	42
Total	93

- 39 maps uploaded by 10 persons
- Last input: 25-May-2023 10:48 (discussion was archived)
- Duration: 242 days

Summary of comments and context

Teams identified problems in the use of the Virtual OSOCC. The information flow on Virtual OSOCC was deemed pretty chaotic and teams did not use it as intended. As an example, there are teams still listed as „Monitoring“ when the event has been closed.

Challenges with uploads

- Some teams tried to keep posting really essential info but found retrieving important information from all the number of posts challenging. Despite the presence of specific folders, information was uploaded everywhere forcing the coordination system to move information from one folder to another. Teams are not updating their fact sheet; according to the VOSOCC, some teams are still monitoring, mobilising, or there.

Challenges with downloads

- Teams found it challenging to extract relevant information from the VOSOCC due to the quick turnover of information.

VOSOCC as a communication tool

- Many teams only used the VOSOCC, and therefore maybe overused it or used it incorrectly. Teams agreed that it should be used for the most important messages and not as communication tool.
- The VOSOCC is not a chat room.
- Teams should never write personal messages, not even in solitude. VOSOCC is not the teams' logbook.
 - If all other communication is down, VOSOCC may be the only option. But if so, with the current overload there is a risk that the comments will not be seen.

Problems with both Virtual OSOCC and ICMS

- Some teams were confused as to having to monitor both VOSOCC and ICMS for worksite assignments; which one is the priority, though this did not apply to all sectors)? Or should they be flexible as one may overlook the other. Teams stated there is a disconnect between the VOSOCC and ICMS. Teams suggested an update VOSOCC guidelines for USAR in posting what, where, when, which finds a way to control input, so it is not as hard to find information.
 - UCC/SCC should inform teams on how they get assignments.

Location information

- When giving GPS coordinates, also provide addresses and landmarks that locals understand. When sharing information about LEMA, include the type of institution LEMA is, names of LEMA and contact information. Caution should be taken about posting contact information, since the VOSOCC is open source. Once you enter contact information, 10,000 people now have that information.

Team name vs. Team ID

- It is easier to work with Team ID on the VOSOCC than team names. Have the first column under All relief teams Team ID (not team name)

Therefore, the questions are

- what information is uploaded onto the VOSOCC, by whom, and why.
- What if there is vital information from USAR or other resources on the ground, and ICMS by any reason doesn't work – how they will inform if comments are not allowed?

An analysis of how the teams use the VOSOCC according to Padlets, suggested topics by teams in Padlet, and then actual use during mission from VOSOCC is presented in Table 1 in Annex 2

Assumptions

- Negative: Too much randomly posted information that is not being found or not being used.
- Positive: Critical information being shared (status of request, ICMS login)
- Positive: Good to give each SCC their own area on the VOSOCC.
- It is not a two-way communications channel (or find a way to control comment overload).
- Focus on its purpose as a messaging board – one-way communication.
- Addressing the problem of too many or inappropriate comments.
 - Reduce the ability to write comments while encouraging contact via other means (email, phone, messaging applications, etc.), or ...
 - Don't reduce the comments, rather create appropriate space/organize the comment section. The beauty of having a comment section is by addressing one comment, the information can be shared to all users. Bilateral conversation can be difficult during the initial phase of response when the operation is still chaotic.
- Set up a structure that is easy to follow when posting or looking for information
- The difference between VOSOCC and ICMS is
 - Information uploaded on ICMS is from the INSARAG forms.
 - Forms or information from forms should not be posted on the VOSOCC.
 - Information uploaded on the VOSOCC can relate to all other information
- Users
 - Teams in the field.
 - Home/HQ: for deployment, decision making, briefings at home
 - United Nations
 - Non-INSARAG teams: VOSOCC becomes the main coordinating tools for them instead of ICMS
 - LEMA, humanitarian teams, partners, research and information entities, and others.
 - General public, including media.
- There will always be a need to monitor the VOSOCC.
- UCC/SCC USAR team staff member have administrator rights to delete information on the VOSOCC.

Conclusions and Recommendations

Solutions will be based on the purpose of the VOSOCC. INSARAG needs to decide what is the purpose of the VOSOCC. After that, guidelines and specific training can be adjusted on how to use it. In details is important to:

- Design more practical training that can test any type of situation.
- Discuss a more functional structure of the VOSOCC.
- Is it possible to lengthen the time before users need to login again?
- The analysis suggests that one of the priorities is to clarify relationship between the VOSOCC and ICMS. and moreover.
- Also, that a strategy is needed on what information to where and want not to put. Table 2 in Annex 2 is suggested as a base of discussion for guideline for VOSOCC for USAR related information.

3.5.2 Are we collecting too much information?

Summary of comments and context

Information management is about the creation, use, retention, preserving and disposing of information. There were numerous comments on information collection, in particular how much to collect and when to collect. It is possible to capture lots of information, especially in large-scale disasters, however, this activity requires time when the focus must be the urgency of rescue work versus filling in forms. Are we collecting too much

information in too short time, or simply too much information that is hard to retrieve and utilize? Are we losing the ability to speak with survivors by being deeply focused on a form? The mission showed that the expectation of first filling in forms can be different from the reality. Therefore, it is important to prioritize timely and crucial information needed for coordination. A distinction could be done between:

- Urgent **information** that are needed to improve the coordination, monitor and analyse the trends of the situation.
- Secondary **information** that can be added when the team is less busy with specific extraction operations.

A review of Worksite forms is required to ensure they meet the needs of USAR teams. The Worksite Triage Form was considered way too extensive for the basic and simple task it, i.e., serves discriminating viable worksites amidst the mayhem. Key question is, what is the information being used for? Does it have real-time purpose or is it to analysis later? The review needs to include the different situations the teams are working in, from Blitz mode (many live rescues) to only working with C and D-buildings. A revision of a quicker worksite adoption form should be included.

Recommendations

Information is collected through forms, therefore any simplification of content or structure for faster application will be through changing the form. It is recommended that

- All forms should be restructured to ensure that vital information is in the first fields to be filled-in and areas are marked as vital (e.g., the location of the work-site, and number of live victims).
- The remaining fields are marked optional.
- These could be colour-coded in the ICMS software form, e.g., red being vital information
- The assumption is that the more we decrease information collection, the more we can speed up assessments and other activities. One solution can also be to add specific people (information manager) who take care of the information reporting. Is INSARAG collecting information for life saving only?
- INSARAG should reflect on and adopt a general strategy on what to do with the information.

Collaborations with Universities and research centres can be established, and joint research and analysis of the deployment information can help to improve the effectiveness of the system, particularly if the research questions are defined beforehand. This supports the idea of collecting information. However, during periods of lifesaving, gathering information for research is not going to be priority. This rejects the idea of collecting non-critical information. Possibly when there are not a lot of life-saving opportunities, there could be options for collecting research information. On the other hand, having to develop a specific information collection plan for each event could be a burden. Therefore, it is recommended that information collection should only be considered if INSARAG develops a strategy prior to a disaster that there is a general consensus over within the INSARAG teams.

3.5.3 ICMS Software

Summary of comments and context

The ICMS software is a digital representation of the paper forms. While there is overall praise for ICMS, the main comments from teams were on the challenges and suggestions for improvement and that the ICMS may benefit from refinement to simplify access and use. Teams had difficulty capturing information on rescues in the early days so there is a need to identify minimum information collection and understand the delays in that being collected.

ICMS Challenges identified by teams

- Despite the much-appreciated remote support of the IMWG on ICMS and 123Survey, 123 Survey, is especially too extensive to be of use in the situation our team experienced. ICMS was not supporting input of information for teams. ICMS including Survey 123 forms are too time consuming. How can its complexity be reduced? There is a need to define what information is needed to manage teams and to coordinate. Find solution or strategy for solution to teams logging on multiples times. Find ways to increase the supply and use of photos.

Suggestions for flexibility

- Ensure that ICMS is designed for objectives, not for information collection. The structure of ICMS needs to be redesigned or re-addressed in some way to meet the goal of supporting INSARAG operations. Ensure that ICMS has the flexibility that INSARAG needs for different type of operation and roles. Adapt ICMS for flexibility in types of assignments that are not based on WS triage forms, e.g., be able to assign teams to work-areas.

Suggestions for simplifications

- Simplify due to information content. Simplify due to being too complicated. Simplify ICMS regarding updating forms. Simplify ICMS for lower skill set maintenance. Can ICMS be more intuitive? Change or explain the one-way aspect of ICMS. How will it be made more user friendly? We need a “short and quick” information collecting sheet and tool. Just a picture location option should be considered.

Suggestions regarding ASR and linearity

- While a UCC/SCC can easily adapt paper forms to different situations in assigning ASR levels, the software is not so easily adapted as it assumes a completed work-site triage form to register worksites and does not allow a UCC to assign teams to work-areas. Therefore, the ASR concept in connection with the ICMS concept has to be developed.

Comments regarding Sector ID Worksite ID and team ID

- UCC used follow-up (additional level of detail) ID logarithm that turned out not to be supported by ICMS. Incomplete sectorizing due to numbering constraints of ICMS; review sector ID. Find solution to Worksite ID naming problems. Unique Worksite ID should be delinked from the sector. Address the issue of teams taking direct assignments from local coordination without allocation of worksite ID from UCC/SSC, how to allow them to mark identification number to their worksites to be uploaded on ICMS. Ensuring worksites receive their own identification will help ensure coordination is performed efficiently. Update the current guidelines to reflect a numbering system that can be used on large events. The coordination system has to be able to manage teams who decide to split and work in different sectors and have different BoO locations, as they will have same team ID. Registering non-INSARAG teams. Call Signs allocations for non-classified teams. Be only able to assign one team to a work-site.

Connectivity and bandwidth

- Teams and LEMA need to address connectivity issues. ICMS needs too much information bandwidth. We should strive to make it easy and as low tech as possible solutions for the work on the rubble. There should be a “low bandwidth” version of ICMS. Use of low bandwidth messages. ICMS should have a fast mode for the first stages of the response and for external teams. A system with Online/slow connection/offline mode and Fast/regular/advanced mode. Telecom partners to deploy as support to ICMS onsite. Disaster-related communication systems can be explored, such as the use of the mesh networking system.

Recommendations

As the ICMS software is a digital version of paper forms, any discussion of ICMS is also a discussion on the utility of forms. The issues mentioned above need to be separated based on:

- Simplify due to information content. Too much information collected reflects both on forms and ICMS
- Technical issues that relate to ICMS only.
- Make a flow chart of the flexibility needed and a flow chart of how it currently works, and identify adjustments need to be made in the current version.

Review of forms

- Too much information. Ensure vital information is first and mark which ones are vital

Review structure of ICMS to meet the goal of supporting INSARAG operations, not just copying the forms:

- Use photos to decrease the amount of information collection. Add what the photo does not entail, e.g., the number of live or missing. Also explain what the photo is depicting.
- Ensure that teams can be assigned to a variety of tasks.
- Using ICMS for planning. USAR coordination is a fast-moving activity where decisions are made quickly through numerous face-to-face meetings, emails and phone calls. ICMS forms are time consuming, and forms may not be filled in till later. Therefore, it may be difficult for the digital process to keep up with real time information needed for decision making. Assuming that it could do so may cause unrealistic

expectations of the software. However, if teams fill in the vital information when they can, the ICMS software will maintain the trend of the operations and form a vital basis for situational and operational monitoring and planning decisions (e.g., resource allocation, reallocation, end of USAR operations estimates, demobilization progress)

Joint paper and digital management

- Update procedures on using paper and digital information simultaneously in the UC Handbook.

Bandwidth and connectivity will always be an issue.

- Find ways to make sure that ICMS maps are not constantly downloading again when the system stalls caused by communication / bandwidth issues.

3.5.4 Other digital tools

Summary of comments and context

Teams were asked to share tools that they used during the mission:

- ArcGIS. ASIGN pro. Beidou Short Message Service. Copernicus images. Crisis 24, Digital offline maps app, DJI Terra for mapping. Email (which one?). Engage System. Gmail. Google. Google Drive. Google maps. GPS tracking. IMBox. Mapping services (which ones?). Mapsme. Mission Manager/Mission Responder tool (ESRI). MS-Teams. Ozi explorer. QGIS. QuickCapture. Satellite phone. Signal. SMS. Telegram. VOSOCC, WA group organised by SCC. Wechat. what3words. WhatsApp. World Bank shakes maps. Voice mail (Would need a database to search the data).
- What to use will be determined whether it is a locked, or unlocked phone...if the phone is owned by a government or organisation, can apps be added?

Recommendations

Address the questions about tools:

- Should ERS designate a messaging application tool?
- Should INSARAG have a standard email tool strategy?
- Is there a helpful messaging tool?
- Should INSARAG develop a system/App to allow critical information to be passed to all teams immediately. Should this be connected to the affected government and other stakeholders.

Address the questions about processes:

- Should teams be flexible and open in regard to using new tools rather than creating a new set of tools?
- If the strategy is to use whichever tool is effective and available in the specific context, how will that tool be used among the teams? For example, there are many messaging applications are used in different countries, how would teams adopt to using these when deploying. Or is it beyond INSARAG to address how the teams communicate internally or externally, therefore no strategy needed?

3.6 Medical

Summary of comments and context

Medical activities beyond USAR medicine included treatments and assessment of the medical infrastructures. The Medical Working Group has addressed the following:

Crush syndrome

- The MWG plans to post protocol for crush syndrome (updated in 2019) on the INSARAG website as a technical reference note. Or should the protocols be incorporated into the Guidelines rather than technical reference notes, to give it more weight and attention.
- What further socialization of the concepts of crush syndrome is being planned?

Amputations

- The MWG plans to post protocol for amputations (updated in 2011) on the INSARAG website as a technical reference note.
- What further socialization of the concepts of crush syndrome is being planned?

Mental well-being of USAR teams

- What is the status of a technical reference note on high-level recommendations that could remain culturally appropriate and feasible for teams in the INSARAG family?

Recommendations

- Follow up on Crush syndrome and Crush syndrome developments and work with partners to expand advocacy on crush injury.
- Follow up on issues regarding amputations.
- For MWG to follow up on
 - Teams ensure psychological support to their members.
 - Further explore possibilities for collaboration with EMTs on medical issues and the challenges therein.

3.7 Safety and security issues

Summary of comments and context

The teams experienced a wide range of safety and security circumstances, from no significant challenges, no security problem on site with population, but from good collaboration to hostile situations. Many locals were thankful and eager to assist in whichever means possible, such as food, gas or even setup a fire for the rescuers to warm themselves. Team contribution includes best practices is cultural awareness and compassion. Understanding and appreciating the scale of the loss allows personnel to de-escalate situations. Appropriate protocols when rescuer was injured were applied. Being assigned interpreter to explain to the people about safety, police officers, AFAD liaisons and transport added to safety and security.

Negative reports on safety included working close to heavy machinery, working in unstable structures, aftershocks, and driving.

Negative reports on security included a small problem near a BoO because many people gathered to take someone involved in a crime. Türkiye government sent several armed military personnel to protect the teams. Many teams reported gunshot incidents to UCC and got support from LEMA. These appeared to be warning shots and not targeted to international humanitarian relief operations. One team reported serious internal abuse where a team member was physically abused by another USAR team TL!!!

Negative reports regarding crowds among locals.

- We paused pro-active operations due to reports of Civil unrest during help goods delivery; everyone goes to worksite once they saw the victims creating a safety issue.
- Local ppl harassed our teams in some areas.
- When closing sites down, number of people were on rubble pile.
- Moving from one worksite without viable rescues to another.
- It was difficult informing locals about abandoning a site. We managed these situations because we had a team member from Türkiye.
- An armoured vehicle was positioned at the BoO entrance. Teams at BoO requested it to be moved away.
- Crowd control was also an issue in NW Syria.
- Report: The team learned that the locals may become very hostile and aggressive toward rescue crews as search and rescue operations took time to reach any tangible result. One of the typical examples was when the team operated at the first site. After extricating two dead bodies, the team could not detect any live victim reaction. Therefore, the team decided to stop the operation and leave the scene. However, the locals approached to the team and requested it to stay longer. If the team did not explain to the locals carefully, there was a possibility that the team would face anti-empathy. In such case, the team may face aggression without any security guarantee from the local police or the military forces. Fortunately, interpreters of the team mediated and patiently persuaded the locals, and the team managed to leave the scene without any problems. It was a reminder for the team to pay more

attention to enhance security as well as safety, in engaging search and rescue operations in an abroad setting.

Recommendations

- Teams get awareness training on crowd movements, and how this would be done in their home country. Lessons learned for international response preparedness should then be developed.
- Develop procedures to ensure timeliness of providing confirmed safety/security information to teams, including on the VOSOCC.
- INSARAG to consider and identify how to create a safety risk critical flash notification system for all teams.
- Include issues above as talking points in briefings, developed in collaboration with LEMA, OSOCC, and UCC as it is critical that there is a uniform answer for ALL teams, and should not need to be a spontaneous reply.

3.8 Team responsibilities – taking ownership

Summary of comments and context

Some teams identified the need to for teams to take ownership of their own operations during missions and being responsible for their own training.

Recommendations

Take ownership of Operations by being able to

- Start rescue operations without an established BoO.
- Operate without effective local and/or international coordination if faced with lifesaving opportunities.
- Start simultaneous operations on multiple sites.
- Operate when disconnected from the INSARAG family.
- Development of Guidance for Asbestos, and hazardous materials used in construction, industry, and households in general.
- respond to situations when tasked by multiple channels, including LEMA, UCC, OCHA or members of the public
- Be accountable to affected population.

Taking ownership of coordination

- Network members must take ownership of the USAR coordination system and show initiative when there is a lack of coordination.
- Be able to assume the responsibility of coordination when it is not working.
- Teams need to take initiative, e.g.,
 - Both LEMA and UCC are directing team – then follow LEMA and update UCC
 - LEMA sends a team to a building that has no ID – then make one. Coordinate with UCC if you can, otherwise don't.

Home office

- Teams are recommended to have a specialized back office team, selected for assessment, reporting, supporting decision process, follow up of the team with from the perspective of not being in the field (lessening the fog of mission), have them help with digital forms .
- The guidelines should include a recommendation to Teams to have a Specialized Back Office during deployments, proposing functions and structure. This could be included in the IEC/R exercise and checklist and during EREs.

Take ownership of training

- „We need to train more people (in our team) to use ICMS and for USAR Coordination Cell.“

Their expectations regarding what to expect from LEMA or the situation

- Non availability of food supplies in local market due to damaged infrastructure
- Water for showers not available from LEMA for three days.
- Asking for priority to teams in traffic.

- Team’s responsibility to manage toilets, manage their sharing of resources, blankets, water, winter clothing, not LEMAs
- Some teams arriving were very large, beyond the expected size of a heavy team in the INSARAG Guidelines.

The summary of expected logistical support LEMA mentioned by some teams calls for an inward look at self-sufficiency (i.e., level of preparedness). Teams must not be a burden on LEMA and recall that

- Food, water, traffic control, toilets, blankets, winter clothing, transport are teams own responsibility
- The definition of self-sufficiency of teams is to ensure that teams are not asking LEMA for items that they should bring or be able to procure.

3.9 Training

3.9.1 More training

Summary of comments and context

The first key message from the teams on training was for more training. The comments regarding training are converted to recommendations below.

It was pointed out that the benefit of training is not only to improve the ability of teams to operate but to understand the benefits of the UC system and are therefore more likely to provide resources, thereby addressing the compliancy issue. Issues mentioned are expanded in the recommendations.

Recommendations

More training on current guidelines

- Teams need to train more on what is already in the guidelines, for example for UCC/SCC staff in regarding flexibility in operations. This requires trainers to develop multiple types of on-site scenarios for teams and coordination cells to practice on.
- More training in setting up and dismantling a coordination structure. Train estimating needed number of SCC (span of control). Train UCC in on-the-spot SCC staff training.
- Train estimating resources needed for coordination in big and small disasters.
- More training on coordinating with LEMA.
- Train RDC at real airports for 36 hours to get the feeling of being left at the airport. Train coordination between RDCs.
- Increase training in creating flexibility in assignments (Work-sites, Work-areas, ASR1-4).
- Table-top exercise should be encouraged.

Tools

- More training is needed on ICMS, especially after its review.
- More training on the VOSOCC, especially after new guidelines.
- The work with “pencil & paper” has to be trained as well.
- Table-top exercise should be encouraged.

Transport challenges

- Train more realistically the challenges of acquiring vehicles for a large number of teams.

Heavy machinery

- Operating heaving machinery in collapsed buildings with live victims may call for specialized heavy machinery operators. Availability of heavy machinery is government or private vendor controlled and part of local operations, but INSARAG teams need to better train how to work with operators in ASR3 and 4 (in addition to 5), taking into account language issues and the need for translators.
- Need to take the issue of heavy machinery more firmly during the EREs.

Joint training

- More joint training between teams, e.g., Ardex (Asia) and Modex (Europe) exercises.
- Ensure that these exercises follow the latest INSARAG procedures.

3.9.2 More variety in training

Summary of comments and context

The second key message from the teams on training was for training to include a variety of scenarios to develop skills in building coordination systems and planning assignments.

Recommendations

More variety in the training and scenarios

- Include situations and activities to train and prepare for the possibility of coordination not working. Training people to perform on-spot training of others, such as LEMA and UNDAC.
- Training with others, e.g., LEMA and UNDAC.
- Need to train different size events during training.
- Teams have to be prepared for people on site being overwhelmed by the situation and depending on when and where teams landed, information being of varying degree.
- They need to be trained to go into multiple situations and have skills to derive an operations plan to tackle the current situation. Variety in form of training, e.g., more E-learning: RDC/UCC, VOSOCC, ICMS.
- Increase training on being assigned a variety of assignments.
- Train sectorizing when there is no LEMA, no UNDAC, no ICMS, and no digital maps. Train how to create and maintain the situational overview. Address how information and coordination improves with time.
- Trainers to build up scenarios based on various variables – see Scenario Matrix in Annex 3.

Training for uncertainty.

- We never know who is going to be first on site from the USAR community. We don't know exactly the state of the disaster and level of collapsed buildings. We don't know what LEMA has managed to accomplish before USAR teams arrive. We don't know how many teams will arrive and we don't know the level to which they will comply. We don't know when UNDAC will arrive.

More realistic and challenging EREs

- How realistic are the EREs? The vast difference in LEMA coordination on the ground in a real disaster setting versus any large-scale earthquake exercise previously run and coordinated by LEMA.

Hold Interviews with the SCC to capture the diversity of operations to use to build diverse scenarios in future trainings.

3.10 Compliance and IEC/R

3.10.1 Compliance

Summary of comments and context

Classified teams are required to contribute trained RDC/UCC/UCC personnel. While it is known that numerous teams who were asked to take on a coordination role in an RDC or UCC declined to do so, there was little discussion in the documents about why the teams did not comply with this procedure, which is stated clearly in the INSARAG Guidelines, and reinforced in the UC Handbook. One solution in Adana RDC was as a single member who deployed from a non-classified team and performed well. This demonstrates fortunate situations that may occur not an example of best practice. The mission showed that it is not only the first team to an affected country that should provide equipment and UC trained personnel for supporting the RDC/UCC/SCC, but **all** incoming teams. Teams can be asked to manage a UCC/SCC/RDC from the beginning to the end of the mission. Logistical issues relating to opportunities dictated when some teams left (getting transport with other teams/national airlines). There was also a lack of compliance from LEMA's side, who did not allow RDC's to be set up in all ports of entry.

During the 2023 mission to Türkiye, over 15 countries participated in the USAR coordination. Many teams showed dedicated commitment to USAR coordination, which should not be forgotten in the midst of the discussion of non-compliance.

Recommendations

Suggestions for

- Regional chairs should have discussions with focal points of the teams to discuss the issue of compliance (whether they were asked to offer personnel or not) to get an understanding of whether there is an

underlying problem or reluctance to take on a coordination role, and if so why, in order for it to be addressed through improved procedures and better training. Better training will likely lead to better compliance

- IERs improved to address compliance and accountability issues for teams.
- Steering group should discuss the obligation to establish internationally accepted coordination methods.
- Governments and Sponsoring Organizations need to review and agree to enforce IEC team compliance and accountability to set up or support RDC, UCC or SCC. Include in the discussion teams being classified and the team classifiers.
- INSARAG teams should consider developing dedicated self-sufficient INSARAG USAR Coordination teams.
- More realistic training where teams leave behind personnel at points of entry for team members to gain confidence in being left behind in small numbers.
- EREs to include training teams to consider what logistical requirements they need to consider leaving team members behind. Or is this a "pre-ERE" training for the teams and their classifiers.
- Team Leaders to recommend to ISG how to address non-compliance in the system.
- IEC/R Working Group discuss with network on how to address issues that the teams are promising to perform during missions. As such, teams are expected to respond in a mission as they did in an IEC/R. Therefore, IEC/Rs could be used to address the issue of compliance and accountability.

3.10.2 IEC/R

Summary of comments and context

The suggestions regarding how to use the lessons from the mission to improve the IEC/Rs are numerous and diverse and focus on

- Logistics, BoO, Operations,
- Team management operations-incl. leadership challenges
- International coordination UCC/SCC Recommendations:
- Interaction with other teams
- Safety/Security

Recommendations

- Send the suggestions for IEC/R to the IEC/R working group for their consideration,
- IEC/Rs addresses compliance and accountability issues for teams.
- A review of how an IEC/R is scripted.
- Review the recommendations for logistics above, brake down by category, and include in the revised IEC-IER Checklist
- Redefine 'self-sufficiency'...it's more than food and water.

4 New Collaborations and Trainings

4.1 Strategy, Operations, and Technical Search

It is recommended that INSARAG set up a subgroup to the TWG to specifically address the question: can INSARAG improve its processes and training in regard to search? The temporary WG should also address new technological information about new technologies and how to leverage these.

The concept of search can include following steps.

1. Defining the affected area
2. Defining hotspot sectors within the affected areas.
3. Defining viable worksites
4. Obtaining information from locals about likely locations
5. Understanding how survivable worksites are created as the building collapses
6. Have a process to prioritize the worksites
7. Are there medical or environmental issues that affect the survivability or priority?
8. Knowing how to systematically apply technological tools
9. Knowing how to work with canines
10. Explore new technological advancement, e.g., radar victim detection.

The INSARAG approach already includes many of these steps. However, the above looks at search from a holistic approach about search: The first few bullets may be viewed as coordination activities, then the building collapse patterns are a building technical perspective, and the last few are search function activities.

Structural Triage as part of a search strategy

The original structural Triage Categories were designed to prioritize the buildings with unknown number of live victims, with all buildings with known live victims placed in a single category (A). It used judgement of voids spaces (giving priority to survivability of victims) and the stability of the rubble (taking into account rescuer safety) to judge which buildings to work in and their order.

The current triage system was simplified to only be based on victim numbers. Simplifying triage to A-D did make ASR 1-3 easier; A and B are easy to figure out as there is a “positive hit.” Leveraging experience, teams can determine how long it would take a knowledgeable crew to free those victims. However, Category C may have been over simplified and could lead to areas going unsearched or buildings with potential survivors not being found due to the lack of a positive hit. During the Türkiye deployment several buildings were classified as C because they had a potential victim, but had no positive hits.

It may be best to update category C to allow expansion/partitioning of buildings. For example, a team does not get a positive hit but based on how the building collapsed, what voids are present, how many are missing, experience, etc. the C category could be expanded to a “C-1, C-2, C-3” or “C -, C, and C +.” This would allow teams to spend a little more time on site and a “higher” C would draw more attention or a sooner return, and a “lower” C would progress faster to a D or would at least not receive a repeat evaluation as quickly for delayering.

A revision of C may include an update to classify different areas of a building with different categories, not just one category for an entire building. While the highest category building triage category would be reported for prioritization, it may be useful for teams working in the building to categorize different sections of a building.

It is recognized that the reason for taking out the aspects of voids spaces and stability was due to it requiring building expertise and experience among those making these judgements. However, instead of skipping these important factors it is recommended that engineers and experienced rescue workers be included in the group to address the technical aspects of collapsed buildings and building collapse categories (figure 2 in Annex 1). As with many aspects of USAR operations, a detailed building assessment is likely to be a specialized skill.

Recommendation for new training

- Strategic, operational and technical Search Courses (SOT Search Courses) that begins from the start of the operations to finding all the victims.

4.2 Team management and USAR Coordination

Every USAR teams needs have strong team management that can work within the USAR coordination system, as well as independently, if the team finds itself working alone or disconnected from the overall response.

Recommendation for new training

- A new course on management coordinated by the teams in the different regions, where they teach each other, share experiences and develop new ideas. This could be an online event to keep the cost down and make it available to all teams in the region (and other regions for people who don't mind the time zone difference).
- Updates to the UC course to take into account lessons from
- Training for RDC/UCC/SCC managers from classified USAR teams and form a roster pool (details on how to qualify for roster pool to be determined by Training Working Group).

4.3 Logistics

The whole point of INSARAG is to help the national system, not to make demands on it. However, the more logistical support provided by LEMA, the faster and safer the operations. Therefore, it is useful to both INSARAG and LEMA if INSARAG takes the initiative to work with the global LEMAs to prepare them to receive teams.

An example of how teams can share resources is the following announcement on the VOSOCC

ANNOUNCEMENT ABOUT HEAVY MACHINERY: To those teams in XXX: The XXX team situated in the stadium has access to heavy machinery can share with others. If you would like to use this opportunity, please contact the XXX team directly at the following phone number: + XXX

To be considered

- Logistics is a key element of a good response. Solutions are very practical
- Ask logisticians to set up a Logistics Collaboration group
- Explain how teams can share resources. While this is a management solution Logistics might make a recommendation on.
- Visit each other in the BoO Logs managers.
- OCHA to place more emphasis on LEMA training
 - Pre-training
 - ERE training
 - On-the spot LEMA training
- The role of LEMA would be more effective if clarified and prepared, especially related to ASR 1 and RDC/UCC.

Recommendations

- Develop recommendations or best practices for managing the first stages of sudden onset disasters with widely spread impact where national systems are overwhelmed.
- A logistic field Handbook for downloading should be available (many teams already have their own).
- Incorporate resource support in coordination training.
- Does LEMA understand how to best provide logistical support? Alternatively, do the teams know their responsibility for self-sufficiency, rather than asking an overworked LEMA to provide perhaps unreasonable support

- Manage expectations: Are logistical support expectations realistic? Initial information on logistics in the VOSOCC and initial briefing at RDC was insufficient but became better in the following days; the logistical support from LEMA to USAR teams' operations varied based on sector.
- That the logistics person in RDC and UCC/SCC is a skilled logistician should be mandatory.
- How can teams share resources?
- Underlined the importance of understanding the details of logistical support in LEMA training
- Resourcefulness: Some teams solved logistic problems via their embassies. Review current advice regarding embassy support.
- Teams should bring with them equipment to be able to produce maps.
- Connectivity issues especially in the initial days.
- Interpreters are critical to the response. Use Türkiye's model for supplying mobile interpreters from guide associations as a role model.
- Non-classified teams: Self-sufficiency of the non-classified teams was rarely existing, and some classified teams had to support them.

Collaboration to consider to further expand on good practices

- Logistics Working Group
- Logistics collaboration group

Logistics courses

- Follow up on Training Working Group's development on a "Logistics Course", with a focus on "proper base camp management."
- Logistic training is needed, especially regarding air transport and dangerous goods.

4.4 Localization

The new National Capacity Building Working Group will focus on building USAR Capacity. It is recommended that building capacity among LEMA entities be either a second objective to building USAR team capacity or given to a separate group, as the work is very different. This is OCHA's responsibility - USAR can be asked to support, but should not lead, unless it is in their own country.

The issue with the most unknowns is strengthening best practices with LEMA. It is a rather one-sided preparedness activity, as we don't know who the next LEMA's will be. Great strides have been taken within INSARAG to strengthen national capacity, but this does not reduce the need for teams to have skills in communicating with LEMA and explaining how the teams and LEMA can best work together in order to save the most lives, for example regarding:

1. What information teams need to decide whether to deploy.
2. What Information they need when mobilizing.
3. How LEMA logistical support greatly enhances teams' effectiveness (transport, fuel, translators, BoO support such as waste management, heavy machinery, safety and security, and GSM and internet connectivity).
4. How LEMA operational guidance greatly enhances teams' effectiveness (situational awareness, local and field level operational managers, coordination liaisons, victim handover).
5. How to end the operations.

New Training

- Community first responders training of trainers
- IRNAP roster training for Training Support Groups and Training Report Groups

4.5 Non-INSARAG Teams

Non-INSARAG teams were not familiar with the INSARAG Guidelines and international development, and caused chaos regarding registration, reporting and demobilization. Teams submitted survey123 forms repeatedly and led to inaccurate information in VOSOCC/ICMS. Some teams directly reported to AFAD at the beginning, as a

result, it was difficult to locate them and RDC became their only contact point. Individual teams did not have self-sufficient capacity.

One of the most active persons in the RDC deployed as a single member from a non-classified team but had been engaged in INSARAG for a long time or participated in many trainings, but provided complimentary support. Country focal points can consider providing additional training to the non-classified teams in their country that intend to participate international deployment.

Recommendation

OCHA ERS and OCHA regional offices to work closely with governments in addressing the issue of non-governmental teams. Invite disaster prone countries to work with INSARAG network. Collaborate on this issue with the INSARAG regional groups.

Possible guidance for USAR coordination

- The UCC addressed all teams, not only classified teams. The UCC assigned non-classified teams to classified teams. This approach worked, but there were also challenges.
- Not the responsibility of UCC/SCC to deal with ill prepared classified or non-classified teams.
 - All teams included in the UCC coordination have to be self-sufficient, regardless of whether they are classified or not.
- People need to be able to speak the language of INSARAG. Can non-INSARAG teams be trained on the spot?

Suggestion for LEMA

- It is the responsibility of LEMA to deal with as they see fit. Should LEMA not accept all teams, such as ill-prepared teams, especially ill-prepared non-classified teams? How will they know the difference?
- Can UN staff or ERS explain to LEMA/government the difference between a self-sufficient team and non-self-sufficient team, and that a non-self-sufficient team can be a burden for LEMA.

5 Focused Review

5.1 Delivery on mandate

Did INSARAG uphold its mandate to deliver on the United Nations General Assembly Resolution 57/150 during the February 2023 deployments to Türkiye?

During the February 2023 deployments to Türkiye INSARAG upheld its mandate to deliver on the United Nations General Assembly Resolution 57/150. There is an overwhelming consensus in the data that the INSARAG system is a well-structured system and fit for purpose through its guidelines and coordination methodology.

Did the network work and do so in accordance with UN GA 57/150?

The resolution UN GA 57/150 addresses

- responsibility of all States to undertake disaster preparedness and mitigation efforts.
- local rescuers in natural disaster response as well as existing in-country capacities,
- international USAR teams in the aftermath of disasters.
- UNDAC teams in facilitating rapid need assessments and assisting Member States to organize the on-site coordination of international urban search and rescue operations,
- 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,
- Burden placed on the resources of the affected countries by those international USAR teams not inadequately trained or equipped,
- efforts made by Member States, facilitated by OCHA to improve efficiency and effectiveness in the provision of international urban search and rescue assistance,
- the Guidelines developed by INSARAG, as a flexible and helpful reference tool for disaster preparedness and response efforts.

The efforts provided by the member states, the affected country, the teams and the UN addressed all the above, both before and during the mission. All entities, except by definition non-INSARAG teams, work within a worldwide network towards a common goal of saving lives from collapsed buildings. Therefore, yes, the network works and did so in accordance with UN GA 57/150.

The resolution UN GA 57/150 stresses the need to improve efficiency and effectiveness in the provision of international urban search and rescue assistance, including the further development of common standards with the aim of contributing towards saving more human lives. This statement is still valid. There is still a lot of work to do so that INSARAG can remain fit for purpose for building collapse search and rescue. The teams' requests for finetuning of procedures and for more training is evidence of that.

Does GA 57/150 remain relevant or are updates/improvements necessary?

The information in GA 57/150 remains relevant. The analysis of the data did not indicate that INSARAG needs to focus on other areas than it is already focusing on. In regard to the on-going discussion on expanding INSARAG to other types of rescue, there was no mention of this in the data. Quite the opposite, the data made strong recommendations that INSARAG must work to improve the effectiveness of its current methodology. In particular, the improvements needed touch upon several aspects such as fine-tuning procedures, tools to facilitate the operativity of the teams, more training especially in terms of procedures and use of the available tools, and additional attention to logistics and collaboration with partners. This will require a great deal of attention.

In regard to adding new mandates to INSARAG in order to make a central register of all specialized personnel at ERS, there is no call for this when looking at the 2023 Türkiye deployment. However, General Assembly Resolution 46/182 on Strengthening of the coordination of humanitarian emergency assistance of the United Nations, already mandates the UN to create such a register in article (27):

“The United Nations should, building upon the existing capacities of relevant organizations, establish a central register of all specialized personnel and teams of technical specialists, as well as relief supplies, equipment and services available within the United Nations system and from Governments and intergovernmental and non-governmental organizations, that can be called upon at short notice by the United Nations.”

It is therefore recommended, based on the data, that no changes be made to INSARAG, that INSARAG continues on its much-needed focus on building collapse search and rescue, but that efforts for additional databases be based on General Assembly Resolution 46/182 article (27):

5.2 Quality Standards/IEC

Did the INSARAG External Classification (IEC) System add value to the response?

There is no way to measure the contribution of the IEC system separately from other INSARAG training and events. The relevant question would therefore be: **Did INSARAG activities add value to the response?** 90 USAR teams, both INSARAG teams and those who were not part of INSARAG but also were part of the coordination system, collaborated to save 300 lives, in addition to the lives saved by National INSARAG teams.

- **Did classified teams comply with the INSARAG guidelines? If any, in what areas of work was there non-compliance? How can compliance be addressed/improved in the future?**

During the Türkiye earthquake there was a stronger call for coordination resources than ever before in an INSARAG deployment, with 10 locations requiring sector coordination staff and additional RDC staff. While resources were supplied to meet these demands, it was noted that some teams did not supply resources to coordination cells when requested. This has also been seen in past events. Compliance can be addressed by

- INSARAG tackling the issue through an organized manner by first obtaining an understanding of the reluctance or inability to provide coordination staff, in order to pinpoint the issues involved, so that the issue can be better understood. This could be done at TLMs or at ISGs, or through surveys and online discussions. Based on the results steps can be taken to resolve this issue.
- Improving how INSARAG training events address the matter of compliancy and strengthen teams muscle memory by having to leave members behind in coordination cells during the operations, while other team members move on to USAR operations.
- Another perspective is to no longer assume that all teams will comply on this issue. The data suggests that this can be addressed by non-deploying USAR teams sending coordination staff, as was done in Türkiye.
- Teams need to understand the benefits of UC system, then they will provide resources,
- Add more training and include on-line training events.

Despite some teams denying requests to supply coordination cells, the teams on the ground made sure that the UCC was operational through the lifesaving phase of the operations. More training is needed on the difference between a UCC and an SCC, and what it means to take on the role of a SCC, even if you are the only team in the sector.

Another factor to be considered is the expected arrival times and duration of the teams. Teams have in the past been arriving a 3-4 days after the earthquake and have demobilized prior to the 7-10 days of operation. This also occurred during the Türkiye missions. According to the data, the teams discussed their departure with LEMA and UNDAC, but it is ultimately their decision when to leave. The earlier teams are more in live search rescue and later teams are more willing to participate in Beyond the Rubble activities. Some teams stayed the entire 10 days. Issues mentioned for leaving included how heavily punishing conditions, weather conditions, morale, the effect of emotional and mental depletion of teams due to intense rescue activity, lack of psychological care, fatigue, decreasing number of lives saved, decreasing or lack of assignments, team not mandated to participate in Beyond the Rubble activities.

While there were no other obvious aspects where teams did not comply for no apparent reasons, there were incidents where teams did not follow procedures (e.g., filling in forms) as would be expected due to the overwhelming need for live rescues on the ground. In these cases, the review of the data shows that this was

not a matter of non-compliance, but a lack of flexible tools. Therefore, these events are leading to a review of the tools to ensure flexibility. There were also cases where teams believed that they were not following procedures (e.g., following the linear order of ASR levels from 1 to 5), where indeed the INSARAG Guidelines and UC system Handbook explicitly state that the ASR levels, while conceptually in a logical order, should be executed based on the information available and situation on the ground. It is not unlikely that when teams arrive that they are asked to perform ASR3s and 4s at known live rescue sites before moving to areas where less is known about the needs for USAR.

- **Were classified teams held accountable to the implementation of the INSARAG guidelines and coordination systems during the response?**

No, if a team said it did not have resources for the coordination cells, then other means found as a solution. There is no mechanism for INSARAG to hold non-compliant teams accountable during a mission. Should there be one? If so, what should it be?

- **How can RDC/UCC/SCC operations be improved in the IEC/IER process?**

Currently, often only one team is running a RDC in an IEC/R and a few teams running the UCC. Other teams only have to register at the RDC or attend UCC meetings. By making every team participating in the IEC/R set up and run an RDC and a coordination cell, not just some teams, and make them do that for the entire IEC/R, teams are likely to have coordination resources a part of the standard practice. And never pre-green RDC or UCC.

By having multiple entry points and setting up multiple RDCs and SCCs, will allow all teams to demonstrate their ability to show their skills and equipment, and the ability to leave team members behind at an entry point to work on these activities. This goes for EREs, UC courses, Modex, Ardex, and other regional exercises.

All teams need to have coordination capacity as any team may find themselves needing to run an RDC, UCC or an SCC. Also, all teams must participate in the coordination process and therefore, need to understand how it works. That understanding comes from training coordination. While it is possible to send dedicated teams to a mission, all teams must practice.

5.3 Interaction with National Authorities and Strengthening Localization/Capacity Building

How did cooperative preparation efforts with INSARAG from the National Disaster Response Authorities, local NGOs, and communities impact the overall response?

The data used in the analysis was mainly from the teams, who are not likely to have detailed information about the above-mentioned cooperative preparation efforts. However, the data does show that

- The answers show a variety in activities both by the teams and AFAD.
- After having been regional chair for 2 years, hosted an ERE and Regional meetings, built up local capacity, AFAD had a good understanding of what needed to be done.
- The damages and disruption to society was immense, calling for local staff to participate that had never been trained in USAR operations.
- Those teams who worked with national staff who had been given USAR or UNDAC training noted how their ability to work effectively in the operations and coordination.
- It was not clear to the teams why there was a reluctance to allow teams to set up an RDC in Gaziantep. This would have helped AFAD with its coordination with the UCC and better enabled the UCC to track where the teams were being sent. The lesson for INSARAG here is that it should always try to maintain a communication network among all teams deployed, to at least maintain its own communication.

How did the Turkish government manage the request for international assistance and related critical decisions such as the 'end of USAR' operations? What factors facilitated or inhibited this part of the response?

The request for international assistance was fast. According to ERS it was on the VOSOCC after 2 hours. Türkiye had been the regional chair in INSARAG, has 4 classified teams, had held an ERE (and supported others), all of

which meant that Türkiye/AFAD had a strong understanding of the INSARAG system and knew the key actors. There was also a message sent out to Ministry of Foreign affairs with a request, which was also a very important part of the fast deployment, as in some cases it was the MFA that contacted the USAR teams, not the other way around.

The last live rescue reported by an INSARAG classified team occurred on 14-Feb. The international teams demobilized in stages. Some of the teams that had arrived early, and had worked intensely since their arrival, decided to leave after reports of a rapid decline in the number of lives being saved in the areas they were working (after Feb 8th-9th). Teams that arrived later participated in the recovery operations. AFAD welcomed all teams and strongly encouraged teams to work on their mission and support local authorities in their effort to save lives. On 19th of Feb 2023, AFAD's INSARAG Operational Focal Point prepared a message with INSARAG representative in Ankara to declare the end of USAR phase for International USAR Teams through VOSOCC

„Message from Mr Winston Chang, INSARAG Global lead, on behalf of Mr Salci, INSARAG Operations focal point: Announcement to all international USAR teams: The AFAD Presidency, on behalf of the people of Türkiye, offers our deepest gratitude to all the international urban search and rescue (USAR) teams who have responded very swiftly, and rendered invaluable life-saving assistance during this challenging time. We are very appreciative of the professionalism and dedication of the international responders working with AFAD teams, in very challenging conditions, to save lives and offer medical assistance to the affected population. For this, we thank you for your strong solidarity, and your efforts in saving precious lives from the rubble. I would like to thank the international teams that have completed their missions and wish them a pleasant and safe journey home“

The end of the international USAR mission was therefore gradual. This is logical as the number of live finds per day is likely to be gradual in such are large scale operation. Many factors were taken into consideration when deciding when to leave the mission or to cease USAR operations, both from the perspective of international teams and from the national perspective. The response was demanding, the likelihood of live finds decreased with time, international and national teams gradually become tired, and logistical resources depleted. The fact that not all international teams participate in body recovery, political issues, and a population who lives in hope of being able to find their loved ones, also affect decisions. Finally, it remains a national responsibility to perform the final task of rubble removal, which needs to be done with care to detect any victims, alive or deceased, deeply entombed in the rubble.

How did AFAD's preparation in accordance with INSARAG Classified and non-classified NGO teams, impact the response?

The data shows that the level of AFAD's knowledge and training in how to run USAR operations varied greatly among the 10 sectors and the logistical support that the teams/sectors were given varied greatly as well. The national AFAD staff knew the INSARAG system well, even to the point where they were ahead of INSARAG by pre-deciding sectors before the USAR teams arrived. According to the UC Handbook, it is expected that the UCC staff are part of the decision to set up sectors based on UCC's ability to manage the affected area. Therefore, the sectors are based on span-of-control of the UCC. However, due to the size of the area and the distances between cities the need for national and international coordination resources was very high. AFAD decided to place a SCC in four other locations and identifying teams to lead the SCC that had not yet arrived in country. This was both clever and confusing at the same time. It was clever to name sectors immediately in the different cities. However, the strength between the UCC and SCC was probably not as strong in the beginning as it would have been if the UCC had been part of the decision-making process. This approach caused confusion for teams who were already in the cities of the SCCs, as the teams who were supposed to lead the SCC were not there. This factor underlines that only teams that are currently on the ground can coordinate. Connection between UCC and LEMA at the strategic level is important. The UC Handbook dictates that the UCC appoints SCC's and SCC lead nations, and therefore an expectation that it would be so. If LEMA has the knowledge or the support from UN to assign SCCs, best practice should be to include the UCC in those decisions as much as possible. In the beginning phase communication systems were very unstable and have contributed to the ability to coordinate effectively between UCC and SCC's.

However, there are best practices to be taken from this turn of events. For example: identifying sectors in different cities is a good idea; That the ERS works with LEMA on creating sectors before the UCC is up and running; need to ensure that the UCC is informed of all the decisions on sectors and has information about the sectors; and ensure that first arriving teams manage the SCC, at least until the appointed team arrives.

Its knowledge of the system helped AFAD to set up an RDC system to assign teams arriving at Adana. It seems that AFAD did not expect Adana to get full and that planes would begin to fly into Gaziantep. Conversations with MOFA representative at Gaziantep confirmed that the Turkish nationals at the Gaziantep airport had not been expected teams to be landing there. This may explain the lack of nationals working in the area. The nationals seem tired. Spoke very little English which led to lack of discussions. It was decided by AFAD not to accept an RDC in Gaziantep by that INSARAG teams. In hindsight, the lesson learnt here for LEMA is that if there are multiple teams at the airport and more coming, or even if you are unsure that more is coming, then it is wise to get the help of INSARAG teams through an RDC.

Did INSARAG's localization tools such as IEC, IRNAP, ERE, and interaction with national and local NGOs improve the response in Türkiye and how can these tools be adapted for other contexts for future responses?

The ERE in Türkiye was beneficial both from the perspective that it trained people in USAR coordination, but it also allowed participants to learn about the Turkish response system, which was very useful for those who participated in the ERE and in coordination during the earthquake. One lesson from the ERE in Türkiye that can be improved in future EREs, was the lack of municipality level coordination involvement, as these are the levels that the USAR teams coordinate with.

Also, the activities let people get to know each other at a personal level. It is clear based on the friendships and acquaintances within the INSARAG network, that the networking that occurs throughout all the INSARAG activities (training, mentoring, IECs) strengthens the relationships between teams and individuals.

Türkiye has a few classified teams. As these were responding nationally, they could respond with much larger teams that if they were deploying internationally. However, the data did indicate that even though these teams responded as large teams, not everyone in the team was fully up to speed in the INSARAG procedures, but they were aware of the procedures and were willing to be guided by INSARAG trained teams during the response. A lesson here for INSARAG is not to assume that local teams will respond with small teams, even if they are only classified as light teams; quite the opposite, they will respond with larger teams. Some INSARAG teams who knew the national teams well, worked closely with the national teams, more or less were incorporated into the national team. An option to consider for strengthening the ties between INSARAG and LEMA and establishing a firm link between both entities is to have a liaison officer to the UCC from a classified national team.

The data has no specific information about the impact of IRNAP and interaction with national and local NGOs. However, local (national) USAR teams made a big difference in early stages and saved many lives. The data showed that local teams have a different experience from international teams, as they were both responding in their own country and as INSARAG teams. Being in your own country may lead to crowds being more aggressive, and you are more aware of the coordination of the national non-INSARAG teams. Also, you are more emotionally involved in the event. Training should take this into consideration. The IEC/IRNAP and ERE tools could be adapted based on grouping teams as local (national), neighbouring (know the country and culture of the affected country very well), and international team (travelling from further away).

5.4 USAR Coordination

How effective was the coordination of USAR teams (national and international) during the response?

There is no data to judge the effectiveness of the national teams during the response. In addition to the comments below that address the specific questions, the effectiveness of the coordination of USAR teams are discussed in section 3.0 herein.

- **Was coordination with National Disaster Response Authorities on USAR Coordination effective and where could it have been improved?**

The effectiveness varied greatly both in geographical areas and with time. Based on the data, the links between LEMA the coordination cells are critical and need to be given stronger emphasis in the training of LEMA and of those working coordination cells. The person leading the LEMA link varied from being from the municipality, to military, to AFAD, to minister from Foreign Affairs. In some cases, the coordination was effective, in other cases it was not. In some cases, it improved with time. Where teams mentioned that the coordinator knew the

INSARAG or UNDAC system, the coordination was said to be good. It is important for LEMA to provide as much on-the-spot training to its personnel, along with the coordination cells do to the same. If the collaboration is not working, the coordination sectors need to report it to the UCC, who needs to work with national level LEMA/OSOCC to strengthen the collaboration.

- **Did the ERS Emergency Networks and Tools such as GDACS, VOSOCC, UNDAC, OSOCC, UCC, SCCs, ICMS, add value to USAR coordination, facilitate coordination with, and augment the nationally led response?**
 - Yes, all the tools were effective.
 - The ERS plays a critical part in getting the operations off the ground, coordinating with LEMA, being available for consultations with teams contemplating deployment, and did so here as well and very quickly.
 - GDACS sent out a high red alert, the highest red alert possible.
 - The VOSOCC provided a platform for critical information about the response from the beginning to the end of the mission. The data show that there is a need for re-discussing the role of the VOSOCC; the access and the procedures need to be regulated whereas several improvement should be done on the training on how use it. It also addresses the need to clarify the difference between VOSOCC and ICMS.
 - UNDAC was closely linked to the UCC and SCCs. A lesson from the event is the importance of UNDAC members being specifically trained in supporting USAR coordination. USAR coordination is highly specified, and tensions can run high during life-saving operations, so having training in USAR coordination is important. Also, there is a need to clarify the role and tasks of UNDAC in USAR operations.
 - UCC and SCCs are critical to the coordination. The coordination cells showed resourcefulness in managing their areas, for example, using local fire fighters to help with creating areas of responsibilities assigned to teams, when there was no LEMA to help them. The UCC training should include how to best support the SCCs, as not all requests for assistance from SCCs could be met by the UCC.
 - Train or develop procedures how to act in circumstances where there is little of unstable connectivity. SCC's should train how to act independently and prepare themselves for these circumstances.
 - ICMS is valuable but needs to be streamlined. It has to allow for more flexibility in assigning teams, building IDs, and working in ASR3 and 4 without ASR 2 having been performed.
 - The data does not address what the OSOCC did.
 - The data makes it clear how important it is for INSARAG teams to utilize their own coordination system that allows them to collaborate, regardless of the coordination system applied by LEMA, because the LEMA system may vary greatly. Also, due to the fact that many teams know each other and have worked together before, but the relationship with LEMA is new, in most cases, is an asset that LEMA should utilize. The INSARAG Guidelines are also clear and GA 57/150 that the coordination system created by INSARAG complements the LEMA system.
 - The OSOCC can leverage on ICMS for analysis and planning.

- **Were the INSARAG guidelines and methodology applied to USAR coordination and to what effect?**

Yes, the guidelines and methodology were applied to USAR coordination effectively. The team leaders' meetings are critical, in many sectors the coordination cells met with teams every 12 hours. Teams fully understand that the coordination cells are there to work with LEMA (if possible) to give them assignments and logistical support and monitor the situation. The ASR1-4 caused some confusion, as some teams thought they had to work from 1 to 5, but the methodology states that these are performed based on the situation on the ground.

Based on the data, there are various improvement needed, but the overwhelming conclusion is that the INSARAG guidelines and methodology is fit for purpose. The main negative feedback in the data is that teams were being requested to collect too much information through the standard forms. The forms were found especially cumbersome when the teams were actively engaged in life-saving operations.

- **Investigate the relationship between USAR and UNDAC operations. How can this be clarified and strengthened for future operations?**

The below is a repeat from section 3.0

According to UN GA 57/150, the role of the UNDAC teams during USAR operations is to facilitate rapid need assessments and assist Member States to organize the on-site coordination of international urban search and rescue operations. The UNDAC Liaison is the link to the OSOCC. The USAR teams coordinate the teams through the UCC/SCCs and the USAR Cell of an RDC. The relationship between USAR coordination cells and UNDAC in a USAR mission is outlined in the UC Handbook (section 8).

There were at the most 10 sectors being operated simultaneously. UNDAC liaisons were situated in the larger SCCs that were defined by LEMA at the beginning of the operations. The support provided by UNDAC liaisons varied in these locations, the variety mainly stemming from different levels of INSARAG knowledge by the UNDAC members. Further comments mentioned that UNDAC/OSOCC needs to be proactive in delivering information to USAR teams and should have knowledge on how to use ICMS if they are delegated to support the coordination. Expectations of USAR teams of what UNDAC support entails needs to be better understood. Some teams consulted UNDAC in the decisions to demobilize. The role of UNDAC in RDCs (for USAR, EMTs, and relief teams)

The initial coordination when teams arrive is a critical part of establishing the USAR coordination system. Most UNDAC members were deployed by UNOCHA/ERS and travelled by commercial flights and therefore may arrive after the first arriving teams. Some UNDAC members deployed with teams.

Recommendations

- Joint meetings and training between UNDAC and USAR coordination cells (UCC, SCC and RDC) to clarify how to work together. As collaboration brings about clarification, it is likely to strengthen the relationship between UNDAC and the teams.
- Greater collaboration and training regarding IEC/Rs, EREs, UNDAC induction and refreshers would also help to clarify and strengthen the relationship.
- UNDAC leverage ICMS to work with the LEMA and UCC/SCCs on information gaps.
- If UNDAC members deployed to the event travel with teams who have dedicated planes, UNDAC members would arrive at the same time as the team.

Did the ICMS system improve USAR coordination? How can ICMS be improved to improve efficiency and effectiveness of information management for future operations?

See section 3.6.2

- **How can INSARAG coordination be applied to overall international USAR coordination including non-IEC teams that are not familiar with INSARAG methodology?**

A non-IEC team may be familiar with INSARAG methodology, as it not required to have completed an IEC or have a valid IER to know the INSARAG methodology. However, a non-INSARAG trained team or a team that has never heard of INSARAG are likely to pose a challenge to the coordinators.

The whole point of INSARAG methodology is that it is pre-trained. It is out of INSARAGs control if LEMA accepts teams that are non-INSARAG trained or they show up through tourist visa and cannot therefore be responsible for their actions. If LEMA has invited non-INSARAG trained teams, they should let the RDC/UCC know. However, the UCC/SCC/RDC trained staff should have procedures on how perform on-the-spot training for non-INSARAG trained team. LEMA should be notified of any teams that are challenging to coordinate.

- **USAR Operations and Technical Lessons**

What techniques and practices improved the overall effectiveness and efficiency of the response for international teams and how can INSARAG implement and share the best practices across all teams globally, and explore for example, new search or medical methods, and logistics procedures?

The answer to this question is found in the results of the analysis of the data, in particular section 4, 5 and 6 in this analysis report.

5.5 Expanding Role of International USAR Teams

Did the 6 February earthquakes redefine the role of international USAR teams and the INSARAG network for the future? If yes, how?

The answer based on the data from the USAR teams is no. There was no discussion about redefining the roles of international USAR teams. On the contrary, there was much discussion on how to strengthen the current role of the teams, improve tools and coordination in order to be even better at collapsed structure search and rescue.

- **What is the role of INSARAG teams beyond search and rescue operations?**
 - There is no formal role beyond search and rescue, and the coordination thereof.
 - Beyond the Rubble activities are ad-hoc and optional and were ad-hoc in Türkiye, mainly donating their equipment. Based on the data, very little beyond the rubble activities were requested or accepted.
 - Nothing new came up to indicate that INSARAG teams are wanting to change their focus.
- **Define the right timing of non-USAR activities to initiate. Should all the activities start after the USAR phase or is there any assistance that can be initiated during the operational phase?**
 - Some teams mandated to only perform USAR activities.
 - Other teams may perform non-USAR activities after live saving operations. There is no indication in the data that the teams want to halt rescue operations to do non-USAR activities.
 - Many teams did not take kindly to being asked to focus on humanitarian activities while they still were working on live finds.
 - Teams that arrived late were more willing to do non-USAR activities.
 - UCC are designed for USAR operations and teams running a UCC for USAR should not be expected to run the UCC after the USAR operations are over. Teams staying for non-USAR activities should run the UCC, as was done in Türkiye.
 - Arrangements will be on a case-by-case basis and the priorities set by LEMA.
- **What support services can be improved (e.g., psychological assistance, relief ops, logistics)?**
 - USAR is a highly specialized activity and so are psychological assistance, relief ops, and logistics. It is unlikely that a standard USAR team has the speciality to provide these services, other than minimal support to others who are providing this.
 - There was an example of a team that stayed for relief, which brought with them staff to manage the relief activities.
 - Another example of a team doing dual activities was when their USAR team demobilized, relief team arrived and took over their BoO.
 - Teams who are interested in expanding their role find their way, but the data is not showing an attempt to change the mandate of INSARAG.

5.6 What is the role of INSARAG in complex emergencies?

Can INSARAG Teams Operate in complex emergencies, Insecure Environments and/or areas not under sovereign control (controlled by De Facto Authorities)? *The following is from the INSARAG secretariat.*

Nothing in GA 57/150 specifically precludes INSARAG Operations in these environments. There are two main elements to this question – we might want to split the question for simplicity?

1. Can and should INSARAG operate in insecure environments? It could be argued that Teams already have, working in Haiti and elsewhere. The critical issues here are whether governments have the risk appetite to allow

their teams to work in non-permissive environments? Most don't, some do. If most government teams cannot go, do NGO Teams have a role to play here? What training and equipment that INSARAG Teams currently don't have would they need to work in non-secure environments? What are the actuary implications?)

And;

How can INSARAG operate in areas which are not state controlled noting that GA 57/150 clearly reaffirms 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?' By strict interpretation of the GA Res INSARAG Teams cannot operate without 'State Consent'. Individual Teams could choose to ignore this but would not be operating as 'INSARAG Teams' but as 'National Teams'. Perhaps one option might be to identify the limited number of earthquake prone areas and advocate for INSARAG support to strengthened disaster response preparedness/capacity building in those areas?)

6 Conclusions

6.1 General Conclusions

- 1) The content of this report reflects the information in data. The data was highly aligned in the sense that there was virtually no contradiction in the messages being provided. This gives an expectation that the recommendations derived from the information are reasonable.
- 2) Many of the suggestions in the data point to what needs to be improved, but not to the specific actions that need to be taken. For example, delete unnecessary data on forms, only important information on VOSOCC, streamline ICMS, without giving guidelines on how to make changes to the current system. Suggestions are provided, but need to be discussed by the team leaders, the working groups, and INSARAG partners.
- 3) Ten topics were derived from the data, with some level of overlap. For example, information about RDCs is both about coordination and therefore related to TWG, but also about logistics, and therefore relates to the recommendation about establishing collaboration on logistics and relates to UNDAC. Due to the unavoidable overlap when grouping the topics, the working groups need to work together in addressing them and reach out to those involved.
- 4) There is an overwhelming consensus that the Guidelines are fit for purpose and well structured. INSARAG has the correct building blocks in its USAR Coordination system. However, INSARAG must keep paying full attention to its system, tools, training, and collaboration with others, there is no time or space to relax on any of these to stay fit for purpose in being able to deal with international collapse structure search and rescue response.
- 5) There is a misunderstanding among many teams that a USAR response has to linear from ASR1-4. The guidelines and the UC Handbook explicitly state that they do not have to be but will depend on the situation. Teams might could be given ASR4s as first assignments. Future training to include a large variety of scenarios in the field so teams can practice adapting INSARAG tool and processes (e.g., ASR1-4) to different situations, to help team members to gain skills in adaptability and flexibility.
- 6) INSARAG network has many teams which have different level of experience and therefore experience the operational challenges in a different way. Some teams have experience is working in areas of responsibility where they have to prioritize their own worksites, other were experiencing it for the first time; some have experiences in working where there is no LEMA, for other this situation was a surprise. All teams would benefit if the more experienced teams systematically shared their field experience.
- 7) Logistics is a key part of the success of an operation INSARAG teams need to continuously be alert and trained in regard to logistics, as strong logistics increases the speed of the operations and lack of logistics can lead to serious delays. The relation with LEMA on logistical issues has a great impact of the operations.
- 8) Relations with LEMA is a key part to the success of an operation. The more preparedness and training the better. However, INSARAG must also train for LEMA being overwhelmed and not able to fully support the teams
- 9) Well trained UNDAC members can facilitate the coordination of the operations, in particular the relations with LEMA, and provide access and insight into the overall operations. Guidelines exist on how INSARAG teams and UNDAC members work together in the field. INSARAG teams and UNDAC members should jointly discuss the details and training of these guidelines.
- 10) „Don't plan for the last war“. The learnings from this mission are from a given set of circumstances. Any changes made to the current guidelines and training approach must take into account not only the circumstances in Türkiye, but a large variety of scenarios. Future work includes making a set of scenarios

- 11) Staffing of the RDC was a challenge and so was staffing the UCC after the main phase of the live rescue was over, even though both were eventually solved. The issue of compliance is not new to this event. There is no system to hold teams accountable when they do not follow through on what they promise to do during their IEC/R. This is a complicated issue that each team and regional chairs need to address.
- 12) Learning from events takes considerable resources. To follow through on all the recommendations herein will require effort from the entire INSARAG network, from UNDAC, government authorities, OCHA, donors, and other stakeholders, paid staff and on a volunteer basis. INSARAG and OCHA also need to scope what is within their responsibility and resource capacity. INSARAG was built on initiative and is its strength. Initiative is needed now.

6.2 Five Strategies for Success for INSARAG

The following strategies for international USAR teams within the INSARAG network were derived from the analysis of the data as key strategies for teams to increase their likelihood for success in the hope of energising and motivating the teams to participate in the future strengthening of the INSARAG network

1. Use the communication links of the INSARAG teams during a mission

The ability of the teams to communicate with OCHA within minutes and hours of an event is recognized as a key aspect of the INSARAG network. This is reflected in the fact that during the mission, 90 international teams communicated in one format or another, e.g., through the VOSOCC, face to face (at the RDC, at the UCC/SCCs, in the BoO, and in the field), email, phones, and/or through sharing data via the ICMS software. Acquaintanceship and friendship developed through the years has strengthened teams' ability to communicate effectively and efficiently. The INSARAG network should continuously be aware of the value of being able to communicate during a mission. Network members make more of an effort to get to know each other during trainings and meetings. Trainings and meetings to include activities where participants get better acquainted.



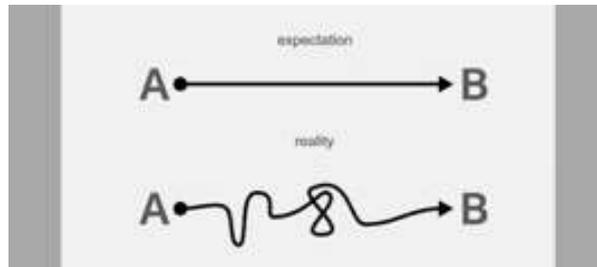
2. Know how to work collaboratively and independently

The analysis shows that the variety in which the teams need to prepare themselves to work. More often than not, teams work together in coordinated groups and sometimes work together in the field or share human resources or equipment. However, the Türkiye mission showed that teams need to be prepared to work alone, either totally alone or with local teams, but without the support of other INSARAG teams.



3. Manage your expectations

The response showed yet again, that no two missions are alike. It is important to have some expectations of how a mission will unfold, however, teams must manage their expectations. They need to train basic operations and then train all sorts of scenarios of how things could go wrong. And then expect something totally different to happen. Part of managing expectations is to be able to adjust operations objectives as the mission progresses.



4. Be Flexible, Adaptable, and Decisive

Teams showed flexibility and resourcefulness. They changed processes when they did not work. They applied software for different circumstances. They resolved problems when faced with lack of compliance. Teams are capable of being flexible, but flexibility needs to be trained in order to make it faster, require less discussions and frustration, to do the best you can, and follow through on your decisions.



5. Remember that success for one team is success for INSARAG

There is a level of randomness of to where each team is sent. Therefore, there is a level of randomness of which teams are sent to buildings with live victims. If it were known beforehand which teams would save lives, it would be sufficient to only send them. But it is not known, so more teams are sent. A team that saves a life does so as part of a large long-standing collaboration where many have contributed. A successful USAR operation is a success for INSARAG.



Annexes

Annex 1 Figures

Figure 1 (Reference: Figure 4-6 in USAR Coordination Handbook)

The red arrows indicated LEMA linkages and the blue line represents distance from field and who coordinates with whom, representing a geographical hierarchy (e.g., UN staff members at the national level may fall under the TL of the OSOCC). The OSOCC also coordinates with the humanitarian sectors, the figure only focuses on USAR.

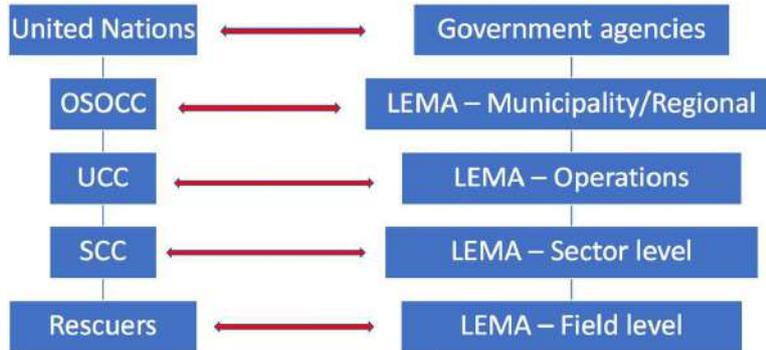


Figure 2 (Reference: Listed in section 5.8.2 in INSARAG Guidelines Vol II. Manual B)

INSARAG building collapse categories

		1. Inclined	2. Overturn	3. Pancake	4. Debris heap	5. Overhang
F13. BUILDING COLLAPSE CATEGORY (BCC)	a.					
	b.					Threats from neighboring buildings.
	c.					Circle all pictures that describe the collapse. Take photos, if possible

Annex 2 Tables

Table 1: Analysis of VO

What the teams use the VOSOCC according to Padlets	Suggested topics by teams in Padlets	Actual use during mission from VOSOCC	REF code
To get the overall picture.	Information from local authorities.	Asking for maps	43019
		Provide update and indication to keep working	43029
For monitoring situation.	Safety and security updates.	Share S&S report	42003
For coordination purposes	Locations	Ask teams to upload info	43005
		Ask for tasking clarification	43016
		Creation of a sector	43016
		To communicate changes in the system (e.g., new section)	42010
		Communicate meetings	42018
		Coordination with the AFAD	46007
To get access to ICMS log in for Türkiye earthquake	Team info.	Ask access to VOSOCC and ICMS	42008
To Upload Team FACT sheet, team status.	Contact info.	Teams used it to ask to be listed in the overview of the teams deployed.	43013
		Not all the teams uploaded the fact sheets	43008
		Ask info on what to upload	43018
		To upload team's info	42003
Reporting. As a last resort, used VOSOCC to report work results when other methods not worked.	For deployments (standby, mobilization, deployed and completed mission.)	Some teams uploaded a recap of their activity.	42015
Posted information that may be useful to other teams	Team situations update and information about the sites.	Share contacts	43005
		Share information about decontamination.	43004
		Track teams still in the area	42022
Get information from LEMA	Understand the situation in the field.		43001
Official announcements	Maps		
USAR coordination cells: info/updates.	Arrival in country dos and don'ts	USAR coordination used the VOSOCC to tell the teams what to upload and	43020

Table 2: Basis of discussion for VOSOCC guidelines for

Category	Content	Who can upload	„Comments“
Add a Relief Team	<ul style="list-style-type: none"> This entire function needs to be revised 	It is not useful as is	Refer to TWG for revision
USAR teams	<ul style="list-style-type: none"> FACT sheet 	Teams	No restrictions on comments? Restricted? No comments? Comments allow in another section?
Situation	<ul style="list-style-type: none"> Affected population Damages Estimated collapsed buildings/entrapped National response Status request 	UN LEMA	No restrictions on comments? Restricted? No comments? Comments allow in another section?
Coordination Structure	<ul style="list-style-type: none"> Information about coordination nodes: RDC, UCC, SCCs. Contact information : LEMA, UN/ERS, UNDAC ICMS link 	UN	No restrictions on comments? Restricted? No comments? Comments allow in another section?
RDC	<ul style="list-style-type: none"> Location Contact Logistical support available for airplane handling. Transport available at airport Translators at airport Team arrival/departure updates 	RDC	No restrictions on comments? Restricted? No comments? Comments allow in another section?
UCC	<ul style="list-style-type: none"> Guidelines on who and how to use this page fixed at top Location and Contacts Meeting schedule BoO location(s) Logistical support in sector/overall Announcements/Situation updates from UCC Demobilization information Information collected from teams Information collected from sector cells 	UCC	No restrictions on comments? Restricted? No comments? Comments allow in another section?
SCCs (created per need)	<ul style="list-style-type: none"> Guidelines on who and how to use this page fixed at top Location and Contacts Meeting schedule BoO location(s) (security, waste management) Logistical support in sector (transport, fuel, heavy machinery, lumber) Uploaded team reports Announcements/Situation updates from SCC# Demobilization information Information collected from teams 	SCC	No restrictions on comments? Restricted? No comments? Comments allow in another section?
Safety and Security	Safety messages being made more visible.	Everyone	Allowed

Annex 3 Scenario Matrix

Scenario matrix format for ideas and bookkeeping when designing multiple scenarios. Four examples are given to show a variety of scenarios. 1st and 2nd are chosen to meet an objective, 3rd is trying to duplicate an event, and 4th is randomly chosen to create something new for those who have already gone through objective-based scenarios. To match a real event, add rows to match those conditions, if they are not already in the table.

Topic	Variations	1 st scenario Easy	2 nd scenario Hard	3 rd scenario Türkiye	4 th scenario Random
Collapsed buildings	Few compared to number of teams	x			
	Manageable compared to number of teams				x
	Overwhelming compared to number of teams		x	x	
Survivors in collapsed buildings	Few As (known)	x			x
	Few Bs (known)				
	Few Cs (unknown)				
	Many As (known)		x	x	
	Many Bs (known)		x	x	
	Many Cs (unknown)		x	x	
Internet	Full internet	x			
	Gradually improving		x	x	
	Intermittent			x	
	No internet				x
RDC	1 RDC USAR desk	x			x
	Other RDC desks also that support each other			(x)*	
	Multiple RDCs		x	(x)	
UCC/SCC structure	UCC sector only	x			
	UCC generates sectors within UCC sector			x	
	UCC generate sectors outside of the UCC sector			x	
	LEMA generates sectors		x	x	x
LEMA linkages	Full	x			x
	Partial			x	
	None		x		
ASR1-4	LEMA has full information, works closely with UCC to assign tasks	x			
	LEMA gives UCC some info on A/B buildings. Assign ASR3/4 + ASR2				
	LEMA done ASR1, sent UCC to hotspots, start with ASR2/recces			x	
	No information at all – start with ASR1		x		x
LEMA support	Full	x			
	Transport			(x)	x
	Translators			x	
	Fuel			x	
	None		x		
UNDAC support	Full	x			x
	Partial			x	
	None		x		
Safety and security	No problems	x			
	Specific problems			x	x
	Working in a non-secure environment		x		
Etc.					

*(X) maybe need to add rows to better describe or partial

Annex 4 initial Working Group Task-Table

To assist Working groups, collaboration groups and teams to identify issues that then need to take into consideration, the following tables highlights which categories are seen to specifically relate to them.

WGs are encouraged to outline their own to-do list, endorsed by the TLs, and provide updates on its progress (completed (how), in progress, not started).

TOPICS	INSARAG WORKING GROUPS						
	GUIDELINES REVIEW GROUP	TRAINING (AND SUB-WGS)	MEDICAL	INFO MANAGEMENT	IEC/R	NATIONAL CAPACITY BUILDING	ERS
INSARAG SYSTEM (INSARAG GUIDELINES)							
<i>Speed of mission activation</i>	X						X
<i>Flexibility /Adaptability and ASR levels</i>	X						
<i>Building Marking</i>	X						
<i>Triage and survivability in voids</i>	X						
<i>New roles and strengthening roles</i>	X						
PHASE IN, MANAGE, AND PHASE OUT A UC SYSTEM							
<i>General</i>		X					X
<i>RDCs</i>		X					
<i>UCC</i>		X					
<i>Sectors</i>		X					
<i>Phasing out a UC system</i>		X					
<i>Working with UNDAC</i>		X					X
WORKING WITH LEMA							
<i>Connections with LEMA at every level</i>	X	X					X
<i>UCC and LEMA Connection</i>	X	X					X
<i>Working with LEMA</i>	X	X					X
<i>Managing expectations of LEMA support</i>	X	X					X
<i>Declaring End of Int'l USAR operations</i>	X	X					X
<i>Donation process</i>	X	X					X
<i>Beyond the rubble</i>	X	X					X
<i>Training of LEMA</i>	X	X					X
LOGISTICS							
<i>Topics before arrival</i>		X					
<i>Topics upon arrival</i>		X					
<i>Topics during mission</i>		X					
INFORMATION MANAGEMENT							
<i>Virtual OSOCC</i>		X		X			
<i>Are we collecting too much data?</i>		X		X			
<i>ICMS Software</i>				X			
<i>Other digital tools</i>				X			
MEDICAL							
<i>Medical</i>			X				
SAFETY AND SECURITY ISSUES							
<i>Safety and Security</i>	X	X					X
TEAM RESPONSIBILITIES – TAKING OWNERSHIP							
<i>Team Responsibility</i>	X						
TRAINING							
<i>More training</i>		X	X	X			
<i>More variety in training</i>		X	X	X			
COMPLIANCE AND IEC/R							
<i>Compliance</i>	X				X		
<i>IEC/R</i>	X				X		
NEW COLLABORATIONS AND TRAININGS							
STRATEGY, OPERATIONS, AND TECHNICAL SEARCH		X					
TEAM MANAGEMENT AND USAR COORDINATION		X					
LOGISTICS		X					
LOCALIZATION						X	
NON-INSARAG TEAMS						X	X

