

LESSON

02

ORGANISING AND STARTING A CSSR OPERATION

Lecture :- 03 Periods

LESSON OBJECTIVES

Upon completion of this lesson, you will be able to:

1. Define a collapsed structure search and rescue operation.
2. Describe the structure of a CSSR squad and the positions within it.
3. List the five phases of a CSSR operation.
4. List the six stages of the Operations Phase.
5. List the five steps of the initial assessment.
6. Describe how a CSSR squad fits into the Incident Response System.
7. Name the four levels in the scope of operations as they pertain to CSSR.

1

Definition Collapsed Structure Search and Rescue

According to the U.S. National Fire Protection Act (NFPA 1670) CSSR is an operation to conduct safe and effective _____ and _____ operations at collapsed structure incidents involving the _____ or _____ of reinforced and unreinforced masonry, concrete, tilt-up and heavy timber construction.

2

Incident Command System (IRS in indian scenario)

A flexible system for managing people and resources.

The **Incident Command System (IRS in Indian scenario)** provides a clear management framework for all types of small and large-scale incidents, such as multiple-casualty, multi-jurisdictional and multi-agency disasters, and wide-area search and rescue operations.

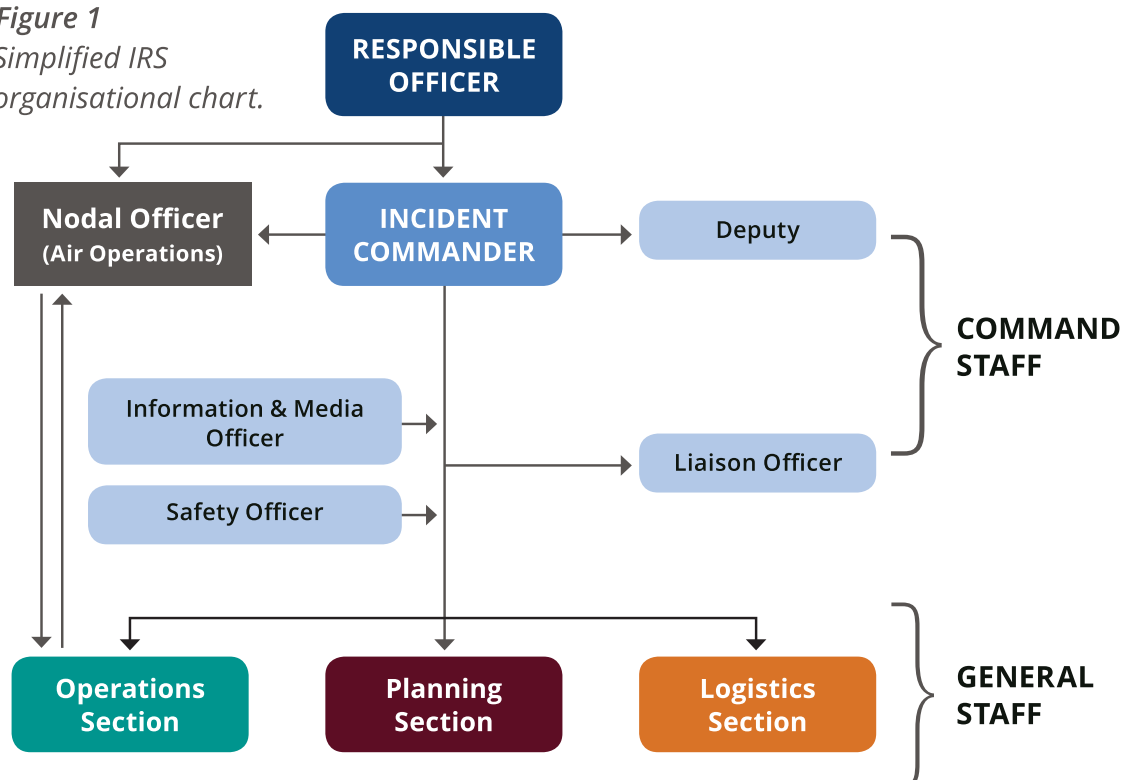
ICS was adopted in India in the form of Incident Response System (IRS) in 2010 and the guidelines on the Incident Response System (IRS) was issued by the National Disaster Management Authority (NDMA) under Section 6 of the DM Act, 2005 for effective, efficient and comprehensive management of disasters in India.

The organisation of the IRS is built around five major management activities: _____ and _____.

These five elements are the foundation upon which the IRS organisation develops. They apply whether handling a routine emergency, organising a major event, or managing a major response to a disaster. The IRS organization functions through Incident Response Teams (IRTs) in the field. Responsible Officers (ROs) have been designated at the State and District level as overall in charge of the incident response management. The RO may however delegate responsibilities to the Incident Commander (IC), who in turn

► **Figure 1**

Simplified IRS organisational chart.



Incident Command System (Cont.)

It is beyond the scope of this course to teach the Incident Command System; however, it is important to give you basic information about your potential role in any such incident.

1.1 Incident Commander

The Incident Commander (IC) is the person in charge at the incident who must be fully qualified to manage the incident. As incidents grow in size or become increasingly complex, a more highly qualified IC may be assigned by the responsible jurisdiction or agency.

The sole function of the IC is to manage the incident by assigning tactical resources and overseeing operations, delegating authority to others as required. The IC should not become involved in _____.

1.2 Incident Command Post

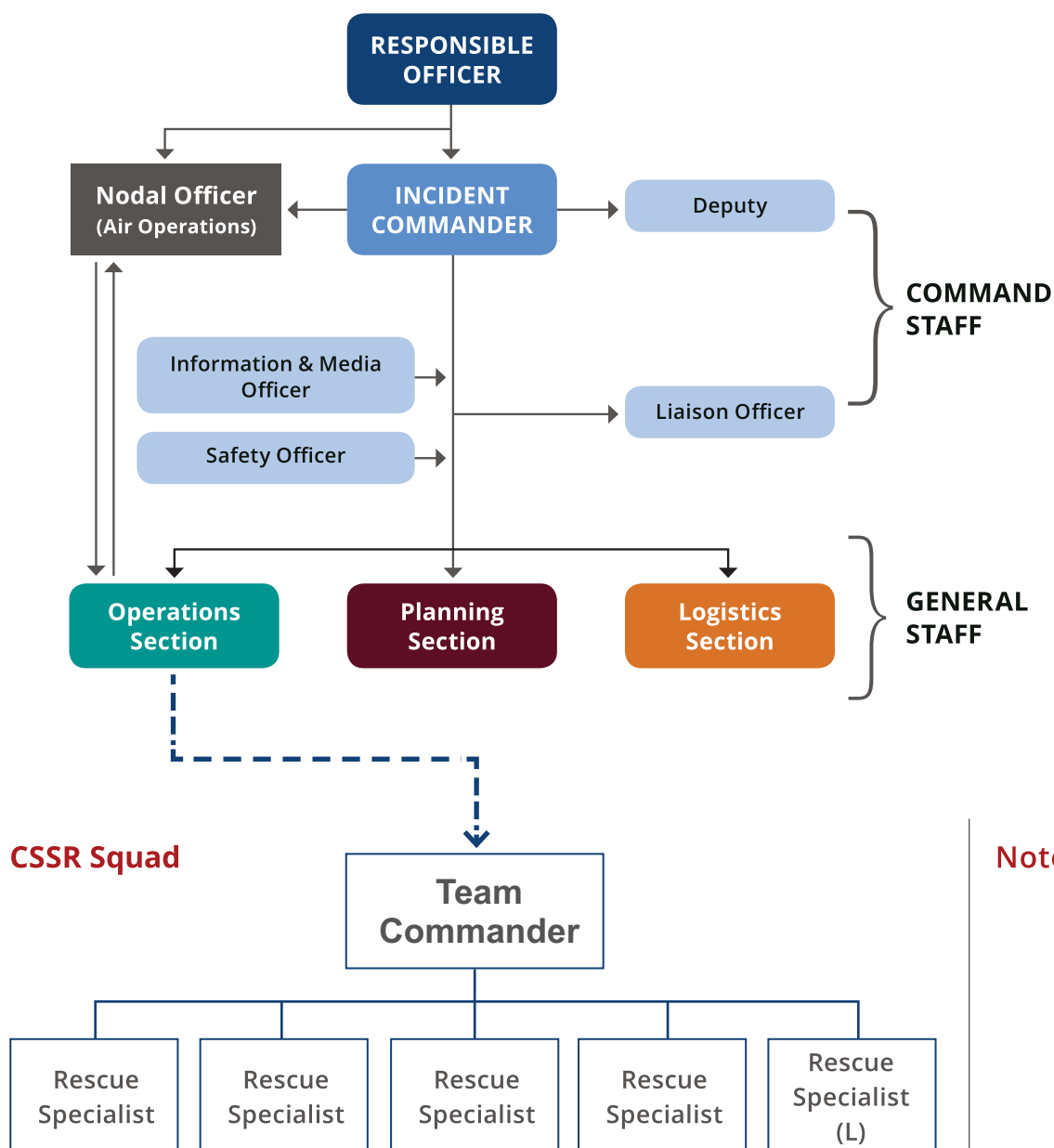
The Incident Command Post (ICP) is the location from which the IC oversees all incident operations. There is only one ICP for each incident or event. Every incident or event must have some form of an Incident Command Post. The various section chiefs and Incident Commander's support staff will work out of the ICP.

The CSSR Squad

An active component of an emergency response system whose purpose is to search for, locate, gain access to, stabilise and extricate trapped victims from a collapsed structure.

In accordance with NFPA guidelines (for safety reasons in a hazardous environment), the CSSR squad should have a maximum of six members, organised as shown in the following figure:

Notes



CSSR Squad

Notes

(L) – Squad members rotate positions as Logistics Person.

Squad Commander Responsible for developing the search plan, drawing diagrams, keeping documentation and making recommendations to the **Team Commander** Performs the duties of the safety officer and is responsible for monitoring safety during the search operation.

The CSSR Squad (Cont.)

Following is a brief overview of the functions assigned to the members of a CSSR squad.

Squad Leader

1. Communicate with the Command Post (CP) or Emergency Operations Centre (EOC).

2. Receive work instructions.

3. Assign tasks to the rescuers.

4. Decide which tools should be used to perform specific tasks.

5. Monitor work rotations.

6. Update the CP on progress and completed tasks.

7. Safety officer for the squad.

8. Maintain a log of all events, actions, and expenditures.

Notes

3

The CSSR Squad (Cont.)

Rescuers

1. Carry out work instructions from the Squad Leader.

2. Use the tools, equipment and accessories correctly and safely.

3. Update the Squad Leader on task progress.

4. Request to the Squad Leader the resources necessary to complete the task.

The _____ is a rotating position within the squad. He/she is responsible for the tools, equipment and accessories, and other resources; squad members will take turns assuming this responsibility.

It is standard procedure to work in pairs. The second rescuer stands behind the first, providing physical support and monitoring safety. Working in pairs also provides the opportunity for rotations and rest.

Span of Control

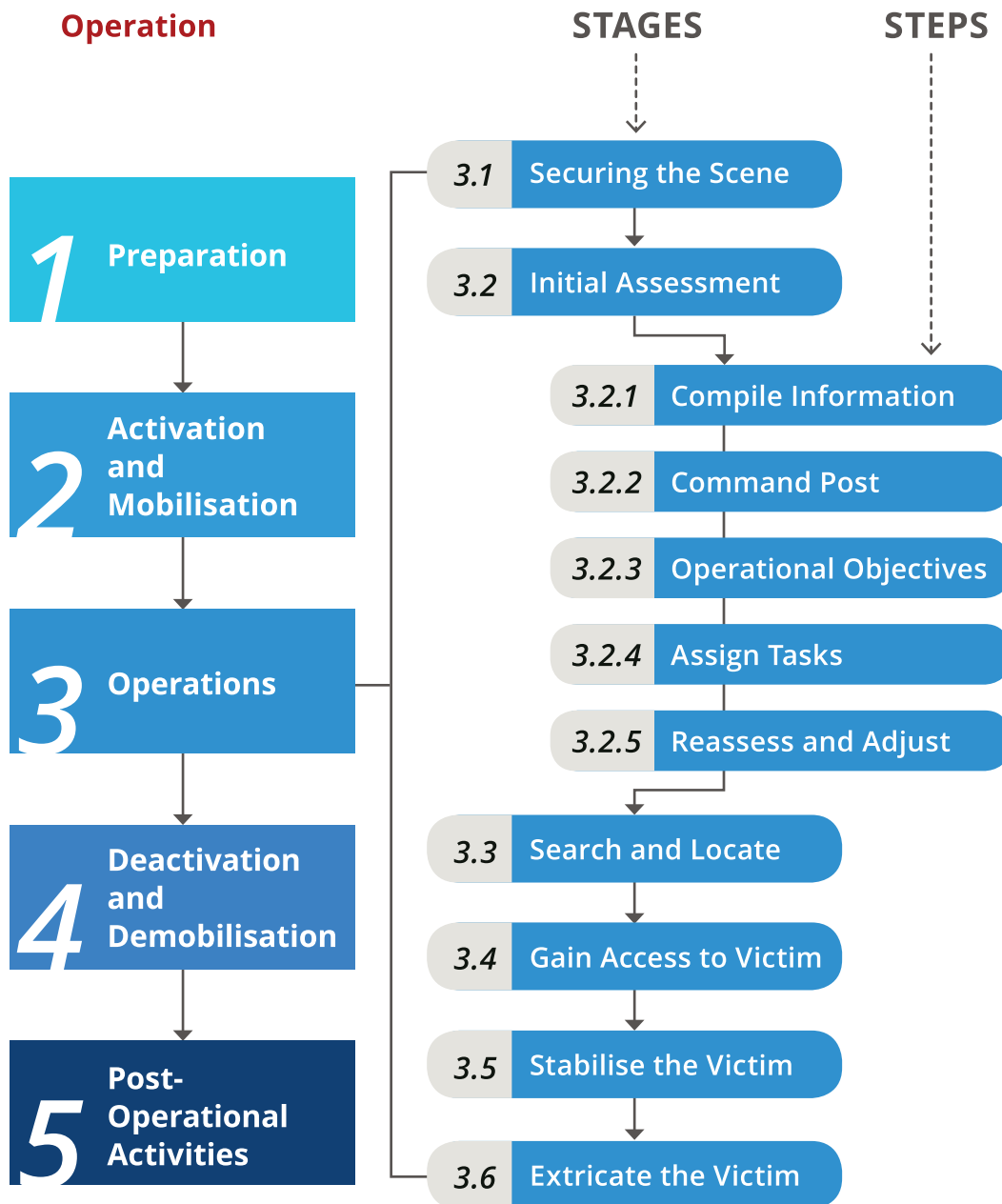
A manageable span of control is defined as the number of individuals one supervisor can manage effectively. **In the Incident Response System (IRS), the span of control for any supervisor falls within a range of three to seven resources, with five being the optimum.** If those numbers increase or decrease, the Incident Commander should re-examine the organisational structure.

Notes

3

Phases of a CSSR Operation

Notes



Phases of a CSSR Operation (Cont.)

Phase 1: Preparation (ongoing, before disaster)

- _____ of team members

- _____ of team members

- Personal protective equipment (PPE)

- Tools and equipment. Very important to maintain in proper _____ condition and ready for mobilisation to work site.

- Make general transportation arrangements.

Phase 2: Activation and Mobilization (request to respond)

- Request transportation

- _____
- Notify team members

- Obtain information on _____. This includes information such as type, location and topography, magnitude/area, number of people affected, number of buildings affected, weather, access routes

- Brief team members on current situation.

Notes

Phases of a CSSR Operation (Cont.)

Phase 3: Operations

The Operations Phase relates directly to search and rescue work, and is divided into six stages. The second stage, or Initial Assessment, consists of five steps.

Stage 1: Securing the Scene

A procedure is carried out to ensure safety and protection to the fullest extent possible for the _____, _____ and _____ (hazard mitigation).

Stage 2: _____

This stage consists of a systematic and ordered procedure for analysing conditions during a CSSR operation. The purpose is to ensure safety and protection to the fullest extent possible for the rescuers, bystanders and victims (hazard mitigation). It begins with the operations phase and continues until the rescue operation is complete.

The initial assessment consists of the following five steps:

► Step 1 : Compile Information

Once at the scene, consult local authorities, gather _____ and conduct a _____ analysis. Confirm and update all information obtained in the activation phase.

► Step 2 : Establish Command Post

► Step 3 : Establish _____, such as:

- general access to the disaster site
- strategic planning and priorities
- allocating resources and personnel managing operations begun by neighbours or other organisations

► Step 4 : Assign _____ to rescue squads.

► Step 5 : Reassess the situation and make _____.

Notes

3

Phases of a CSSR Operation (Cont.)

Stage 3: Search and locate

Conduct a search using a specific set of techniques to obtain a response or indications of the presence of live victims in a void space inside a collapsed structure.

Stage 4: Gain access to the _____

Remove rubble, break and breach materials and create a passageway to access the void space where a live victim is believed to be located.

Stage 5: Stabilise the _____

Perform basic life support on-site _____ extricating the patient in order to improve later chances of survival. You will hand off the patient to more advanced medical care after extrication.

Stage 6: Extricate the patient

Remove rubble surrounding the patient, ensuring no further injury. Shore loads as needed. Ensure no additional pressure is applied to any trapped portions of the body.

Notes

Phases of a CSSR Operation (Cont.)

Phase 4:

_____ and _____

- Confirm no other operations are needed.

- Account for all tools and equipment. Prepare tools and equipment and pack them for transportation.

- Confirm that personnel have all their personal items.

- Arrange for transportation.

Phase 5:

Post-Operational Activities

- Critical Incident Stress Management (CISM)

- Medical physical examinations for rescue personnel.

- Equipment rehabilitation.

- _____ with rescue team.

- After-Action Report for institutional management.

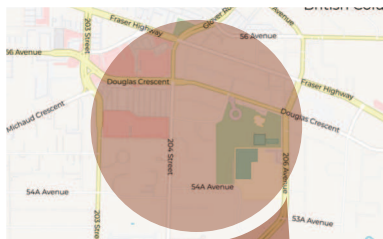
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Scope of Operation

In a large-scale emergency such as an earthquake, the area of impact will usually be over a wide area, possibly covering many cities. As a result, the incident will be managed by different groups at various levels, depending on their type of responsibility.

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Affected Region



Affected Region:

refers to the overall area of impact, such as the country or cities affected.

City or Area



City or Area:

refers to a smaller section of the affected region, such as a city or area with many collapsed building.

Scene



Scene:

refers to one particular building or collapsed structure.

Work Site



Specific Work Site:

a specific area within the building or collapsed structure where a rescue squad is assigned to work

The work site is the scope of operation for a CSSR squad. As a member of a CSSR squad, you will be concerned only with performing rescue work on a specific site. Coordination on a larger scale will be taken care of by personnel at a different level of administration.

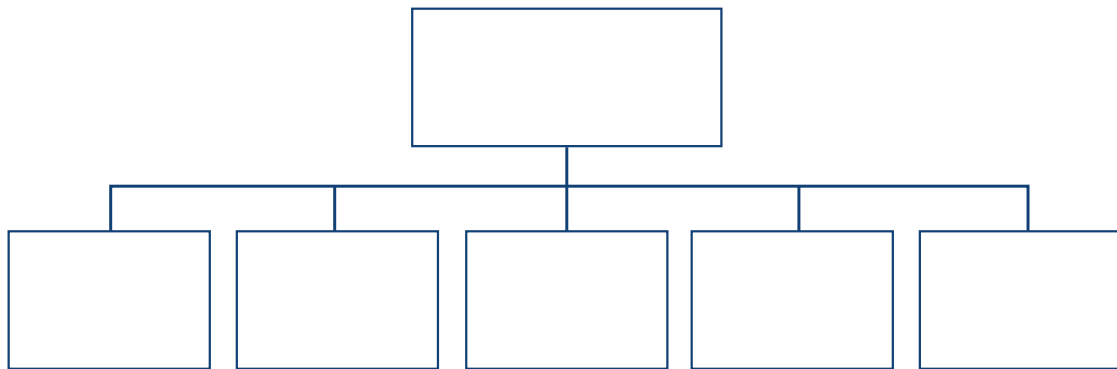
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POST-TEST | LESSON 2

Organising and Starting a CSSR Operation

1. Define a collapsed structure search and rescue operation.

2. Complete the structure of a CSSR squad and positions within it.



3. List the five phases of a CSSR operation.

4. List three stages of the Operations Phase.

5. List three steps of the initial assessment.

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CSSR LESSON 2 EVALUATION

Course Location: _____ Dates: _____

Do not write your name on this form. Please complete a copy of this form at the end of every lesson. Your evaluations are very valuable towards improving the course. Please use the ratings below.

	1 VERY POOR	2 POOR	3 AVERAGE	4 GOOD	5 EXCELLENT
Please fill in the required information.	Lesson Number :		Lesson Name :		
	Instructor's Name				
Use a scale from 1 to 5 as described above to rate the various lesson components.	Lesson Rating (rate 1 to 5)				
	Content		Instructor		Method
	Workbook		Interaction		
Mark your selection with an "X"	Instruction Level <input type="checkbox"/> Too basic		<input type="checkbox"/> Appropriate		<input type="checkbox"/> Too advanced
	Duration <input type="checkbox"/> Too short		<input type="checkbox"/> Appropriate		<input type="checkbox"/> Too long
	Usefulness Was this lesson useful to you? <div style="text-align: right;"> <input type="checkbox"/> Yes <input type="checkbox"/> No </div>				
Rate from 1 to 5	Overall Lesson Rating Taking all the above into consideration, I rate this lesson: _____				
If you need additional space, please use the back of the sheet.	Comments and Observations <div style="height: 100px;"></div>				

Thank you for your help. Your input is valuable. Please turn in this completed form to the instructor.