Unified Command System in Disaster Management

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Disaster Medicine over view

֍ **Disaster** : is disruption of the functioning of a region with human, material, economic or environmental loss and impacts that exceeds the resources to cope and recover from the event.

֍ It is an inappropriately managed risk of hazards and vulnerability.

Disaster Medicine over view - continue

ೞ **Vulnerability:** is the inability of a system to withstand the effects of a hazard.

ೞ **Hazard:** is a situation that poses a level of threat to life, health, property, economy or environment.

ೞ **Surge Capacity:** the ability to manage a sudden, unexpected increase in patient volume that would otherwise severely challenge or exceed the current capacity of the health care system.

Disaster Medicine over view - continue

☙ Mass Casualty Incident (MCI) : is any incident in which emergency medical services resources are overwhelmed by the number and severity of casualties.

MCI at Paris
Friday, Nov 13ᵗʰ, 2015

- At 21:16 <u>CET</u> three suicide bombers struck outside the <u>Stade de France</u> in Saint-Denis. This was followed by several

- Mass shootings, and suicide bombings, at cafés and restaurants.

- Hostages at <u>Bataclan theatre</u>

- Death of 130 people, 368 were injured, 100 seriously.

MCI Time Line

- **21:16 -** First suicide bombing near the Stade de France and the 2nd at 21: 19.

- **21:25 -** Shooting at the rue Bichat, then at rue de la Fontaine-au-Roi at 21:36.

- **21:36 -** Shooting at the rue de Charonne. At 21:40 - Suicide bombing on boulevard Voltaire.

- **21:40** – Siege of the Bataclan theatre and shooting begins

- **21:53** – Third suicide bombing near the Stade de France.

- **Nov 14th at 00:20** – Security forces enter the Bataclan. The Siege ends at 00:58.

Casualties

The attackers killed 130 victims and injured between 352 and 368.

~80 to 99 taken to hospital in serious condition.

Of the dead, 89 died at the Bataclan theatre, 19 at La Belle Équipe, 15 at Le Carillon and Le Petit Cambodge, 5 at Café Bonne Bière and La Casa Nostra, and 1 at Stade de France.

Attack Sites

Attack Simulation

Challenges in MCI Management

ೞ Unified Command System in Disaster Management.

ೞ Command Post at Site – Scene Safety Issue.

ೞ Activation of ICS & HICS through EOC.

ೞ Inter & Intra-agency Communication.

ೞ Communication with the public.

Managing Disaster Events

Goals & Objectives

* The needs for a well established unified command system for disaster management.

* Incident Command System (ICS) functionality.

* National Incident Management System (NIMS) functionality.

* Training, education, credentialing and certification in disaster management.

Incident Management Shortcomings

ଓ Lack of accountability.

ଓ Unclear chains of command and supervision.

ଓ Communication: codes and terminology.

ଓ Lack of an orderly and systematic planning process.

ଓ Lack of a predefined integrated inter-agency process.

Unified Command System in Disaster Management

ℰ A systemic approach through mechanism to achieve a set of goals and objectives in situations where two or more political or functional entities have authorities and /or assets.

Unified Command

- Incident Commander : single commander

- Unified Command : two or more commander – shared authority mainly for large incident with multi-agency involvement

Unified Command

- **Joint Operations Center** (JOC) : operates 24/7/365, with multiple agencies.

- **Joint Information Center** (JIC) : interface location between the media and the PIO.

Federal Emergency Management Agency (FEMA)

ଔ Established in 1979.

ଔ Mitigate, prepare, respond & recover from all types of disaster events.

The Incident Command System - (ICS)

   (ICS): is a standardized approach to the command, control, and coordination of emergency response providing a common hierarchy within which responders from multiple agencies can be effective.

ICS

ICS includes procedures to select and form temporary management hierarchies to control funds, personnel, facilities, equipment, and communications.

Comprehensive Resource Management

- Resource management and tracking includes :-

- Categorizing resources.

- Ordering resources.

- Dispatching resources.

- Tracking resources.

- Recovering resources.

ICS
Management by Objective

⚞ **Incident Action Plans** (IAPs) :

⚞ Working at same goals.

⚞ Set operational period.

⚞ Incident supervisory personnel.

Communication Integration

ು Integrated voice and data communications system, including equipment, systems, and protocols.

UNIFIED COMMUNICATIONS
Integration of Real -Time Communication Services

ICS in emergency and non-emergency event management

- Concerts
- Parades
- Ceremonies
- Fairs and other gatherings
- Training exercises

ICS Structure
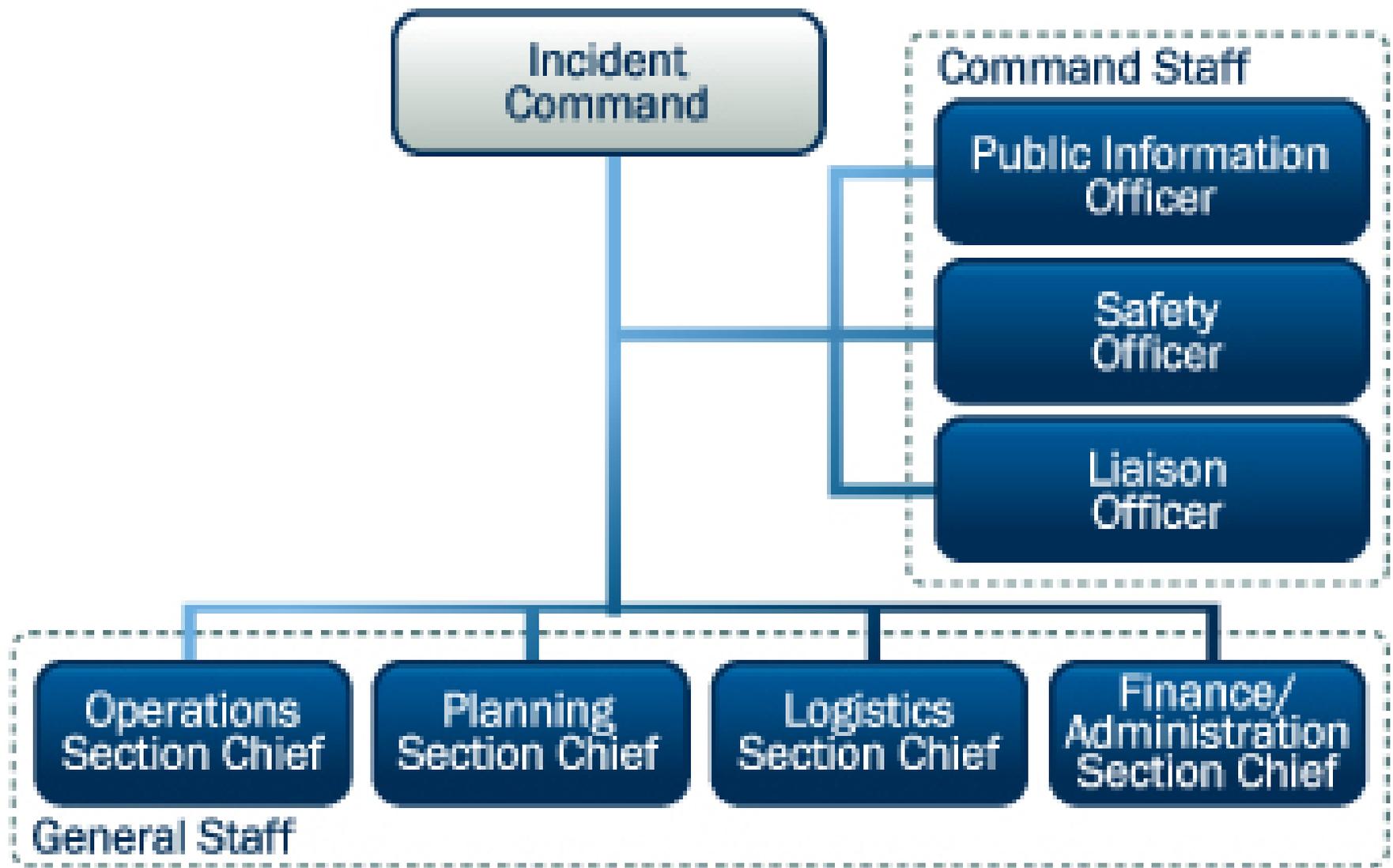
ICS Framework

◌ Incident Commander

◌ Sections (Chief)

◌ Branch (Director)

◌ Division (Supervisor)

◌ Group (Supervisor)

◌ Unit, Team, Force (leader)

◌ Individual Resources

ICS Flexibility & Scalability
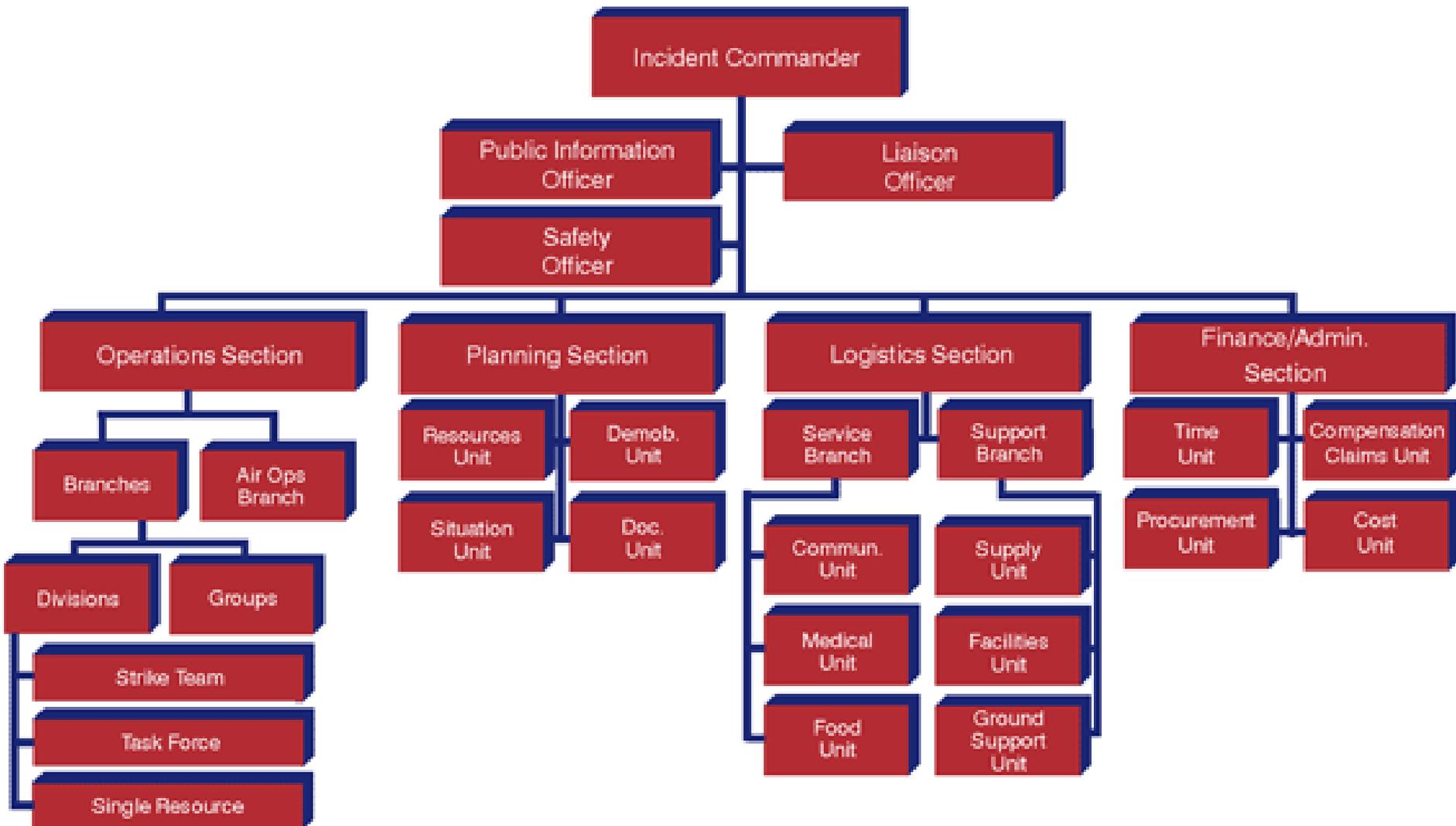
ICS

- Managed by Objective.

- Flexible & Modular Organization.

- Span of Control: managing individual between 3-7.

- Unity of Command: report to one leader.

- Incident Action Plan (IAP).

Incident Management

National Incident Management System (NIMS)

❧ NIMS: is a standardized approach to incident management developed by the Department of Homeland Security (DHS) in the U.S in 2004.

❧ Facilitate coordination between all responders.

❧ National Integration Center (NIC).

❧ Federal Emergency Management Agency (FEMA).

NIMS

- Comprehensive, nationwide systematic approach to incident management.

- Enhances organizational response & interoperability.

- Universally applicable, scalable & flexible frame work.

- All – Hazards preparedness & response.

- Effective emergency management.

NIMS Framework

NIMS Cycle

NIMS Courses

ICS/NIMS Training Pyramid

- Area Command Functions / Multiagency Coordination / Leadership — **ICS 400** — Command and General Staff / EOC Managers
- Tactical Level Management — **ICS 300** **IS 800** — Division/Group Supervisors / Branch Directors / Strike Team/Task Force Leaders / EOC Staff
- Crew Supervision / Initial Management — **ICS 200** — Unit Leaders / Single Resource Leaders
- Basic Awareness — **ICS 100** **IS 700** — Responders

Training, Education, Certification & Credentialing

- ❧ International fellowship programs in disaster medical Sciences.

- ❧ International accredited courses in disaster medicine.

- ❧ EMDM : European Master in Disaster Medicine.

- ❧ European Medical Corp (EMC).
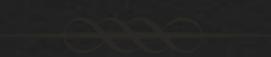
Questions?

In Summary

ଙ୍କ Unified Command System for Disaster Management is an important system to have in place to improve the outcome measure, cost containment, risk reduction and consumer satisfaction.

ଙ୍କ ICS: flexible structure to manage an incident.

ଙ୍କ NIMS: National Framework.

ଙ୍କ Training, education, credentialing and certification are one of the main pillars to manage disaster events effectively & efficiently.

Reference

Koenig KL, Schultz CH. Koenig and Schultz's Disaster Medicine: Comprehensive principles and practices. Chapter 21: Mass Fatality Management by Sledzik PS and Bryson SW. Cambridge University Press. 2010; 21-30