

INCIDENT MANAGEMENT SYSTEM (IMS)

Description

This chapter introduces the Incident Management System (IMS) — an effective tool for co-ordinating the response of many agencies to a disaster. It describes the structure and function of the IMS and how it can bring together humanitarian agencies and the military.

Learning Objectives

- To discuss the history and development of the Incident Management System.
- To describe the basic structure of the Incident Management System and the concept of an Overhead Team.
- To characterise the importance of logistics, communications, and operational safety in a humanitarian emergency.
- To discuss unified management (command) and how IMS can improve co-ordination between civilians and the military.
- To define the essentials of IMS training.

Key Competencies

- To understand the history and development of the Incident Management System.
- To define the Incident Management System structure and the role of an Overhead Team.
- To recognise the importance of logistics, communications, and operational safety in a humanitarian emergency.
- To understand how unified management (command) and IMS can improve co-ordination between civilians and the military.
- To design a simple IMS training program.

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HISTORY AND DEVELOPMENT OF THE INCIDENT MANAGEMENT SYSTEM (IMS)

From Incident Command System (ICS) to Incident Management System (IMS)

The Incident Management System (IMS) is an all-risk, all agencies, co-ordinated system for managing humanitarian emergencies.

In the 1970s, after a severe wildfire season, fire managers in California (on the west coast of the United States) realised they needed a new approach to emergency response. In incident after incident, they ran into the same overall problem — poor inter-agency co-ordination. Most agencies are experienced in responding to routine or small-scale incidents. This usually involves only a few agencies and the demand for resources is limited. As disasters intensify, more agencies arrive on the scene. This brings further communication, logistical, and co-ordination problems, as listed below:

1. Having uncommon radio frequencies, signals, and codes — this leads to poor inter-agency communication.
2. Lack of common terms — when agencies did talk, they often misunderstood each other.
3. No effective or functional command system — each agency operated on the luck and personality of its leaders. In some situations, the operational effectiveness depended on which leader or chief was working that day.
4. Insufficient methods for giving out resources effectively.
5. Poorly defined ways of responding to disasters — there were no standard guidelines. How each response related to other functions depended upon individual interpretation.

Fortunately, a group of aircraft engineers agreed to help the fire managers develop a disaster management strategy for co-ordinating all agencies responding to large-scale emergencies such as wild-land fires. As a result, the modern **Incident Command System (ICS)** was developed. It was based on the “*systems approach*” common to the defence and aerospace industries.

Over the next two decades, ICS teams were only organised for wild-land fire fighting. Later, people in other emergency response sectors began to think that if ICS teams could handle a major wild-land fire, they should also be able to apply ICS to any type of emergency or disaster, ranging from natural disasters, technological disasters, terrorism, or complex humanitarian emergencies.

As a result, ICS terminology and management aspects were revised and the ICS concept was broadened to an “all-hazards” approach. The Incident Command System (ICS) became the **Incident Management System (IMS)** — an all-risk, all agencies, co-ordinated system for managing humanitarian emergencies. Wherever it is applied, IMS has proved to be a valuable disaster management tool. It allows for a more co-ordinated and effective response and better accounting of personnel and resources. More and more agencies are using IMS, for example:

- Organisations such as the U.S. Coast Guard currently apply IMS in hazardous material spillage operations.
- Law enforcement organisations apply IMS in tactical operations.
- Emergency Medical Service systems apply IMS when managing mass casualty incidents (MCIs).

Note: *The terms Incident Management System (IMS) and Incident Manager are used throughout this chapter. These terms can be used interchangeably with the terms Incident Command System (ICS) and Incident Commander (IC), depending on local protocols.*

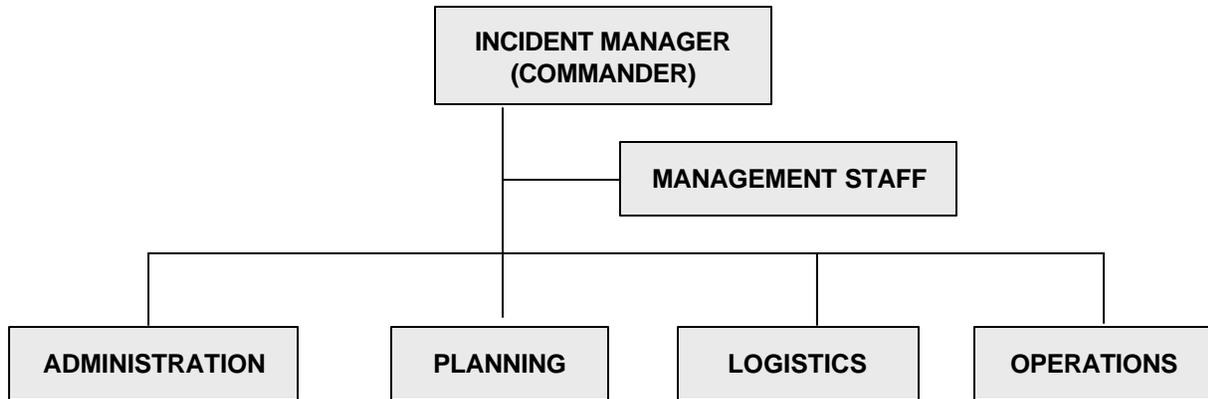
Table 10-1: Terms and Definitions

All-Hazards Approach	Can be applied to any type of emergency or disaster, e.g., natural disasters, technological disasters, or complex humanitarian emergencies.
Branch	A component that responds to the operational needs of an incident. It can be mobilised or demobilised according to the needs of the event.
Chain of Command	A clear flow of information, up or down.
Flexibility	The system applies to any incident (or management problem). It is not a system of checklists.
Incident Action Plan (IAP)	Plan for responding to disaster incidents which may be pre-defined or developed during the operation.
Incident Management System (Incident Command System)	IMS is an all-risk, all agencies, co-ordinated system for managing humanitarian emergencies.
Incident Manager (Incident Commander)	The individual in charge of the Incident Management System.
Logistics	The procurement, distribution, maintenance, and replacement of material and personnel. <ul style="list-style-type: none"> • Push logistics — standard quantities of equipment and supplies are estimated, and stored, ready to be quickly “pushed” to the scene. • Pull logistics — ordering equipment and supplies after the need is determined.
Overhead Team	The total management group for a given event and includes the management staff, section chiefs, and branch directors. The Overhead Team also includes unit leaders in the operations support sections (logistics, administration, and planning).
Span of Control	No individual manages more than three to five sections or units.
Unified Management (Unified Command)	There is a single person (or management team) in charge.

BASIC STRUCTURE AND FUNCTION OF THE IMS AND THE RAIT TEAM

The **Incident Manager** (Commander) is in charge of the entire IMS. This person is assisted by a group of specialists known as the **Management Staff**. There are four major sections under the Management Staff: **Administration, Planning, Logistics, and Operations**. The management staff and the chiefs of these four sections form the backbone of the IMS structure. Each section is discussed in detail in later sections. Figure 10-1 shows the basic structure of the Incident Management System:

Figure 10-1: Basic Structure of the IMS



Key Points

1. IMS identifies key functions; it is not based on rank or hierarchy.
2. IMS defines a relationship between four key functions: operations, logistics, planning, and administration.
3. IMS specifies a chain of command and a reasonable span of control (a leader does not supervise more than three to five subordinate units.)
4. The IMS emphasises support (Logistics) and decision making (Planning) as essential elements to Operations.
5. IMS can be applied to any agency, incident, event, or humanitarian emergency. (It works for every response.)
6. IMS provides a system of common terminology. Responders can talk and understand each other.
7. IMS is flexible. It can be expanded or contracted, depending on the demands of the incident.

The Incident Management Team

To ensure an effective response to large and complex humanitarian emergencies, an **Incident Manager** (Incident Commander) should be appointed to lead the IMS team. The Incident Manager directly supervises the following:

- the management staff — consists of a *safety officer*, a *liaison officer*, and a *public information officer*.
- the Administration, Planning, Logistics, and Operations sections.

Note: *The Incident Manager is responsible for all functions not delegated.*

The following table summarises the personnel in each section:

Table 10-2: The Incident Management Team

Section	Staff
Management Staff	<ul style="list-style-type: none"> • Incident manager • Liaison officer • Safety officer • Public information officer
Administration and Finance	<ul style="list-style-type: none"> • Administration section chief • Time unit leader

	<ul style="list-style-type: none"> • Workmen's compensation unit leader • Procurement/purchasing unit leader
Planning	<ul style="list-style-type: none"> • Planning section chief • Situation status unit leader • Resource status unit leader • Documents unit leader • Weather specialist
Logistics	<ul style="list-style-type: none"> • Logistics section chief • Communications unit leader • Food/water unit leader • Facilities unit leader • Security unit leader • Ground support unit leader • Supply unit leader
Operations	<ul style="list-style-type: none"> • Operations section chief • Medical branch director • Public health branch director • Public works branch director • Fire branch director

Overhead Teams

Major humanitarian emergencies require an Overhead Team for incident management.

During major humanitarian emergencies, relief managers cannot address all the problems alone, particularly when all problems appear urgent. Field officers are often unable to assist a relief manager because they may be overwhelmed with the ongoing problems of delivering relief.

To ensure a smooth and co-ordinated response, the IMS has a well-trained and experienced **Overhead Team** to support the Incident Manager. An Overhead Team is basically the IMS team that is responsible for managing the overall response to a disaster. Each Overhead Team consists of the following:

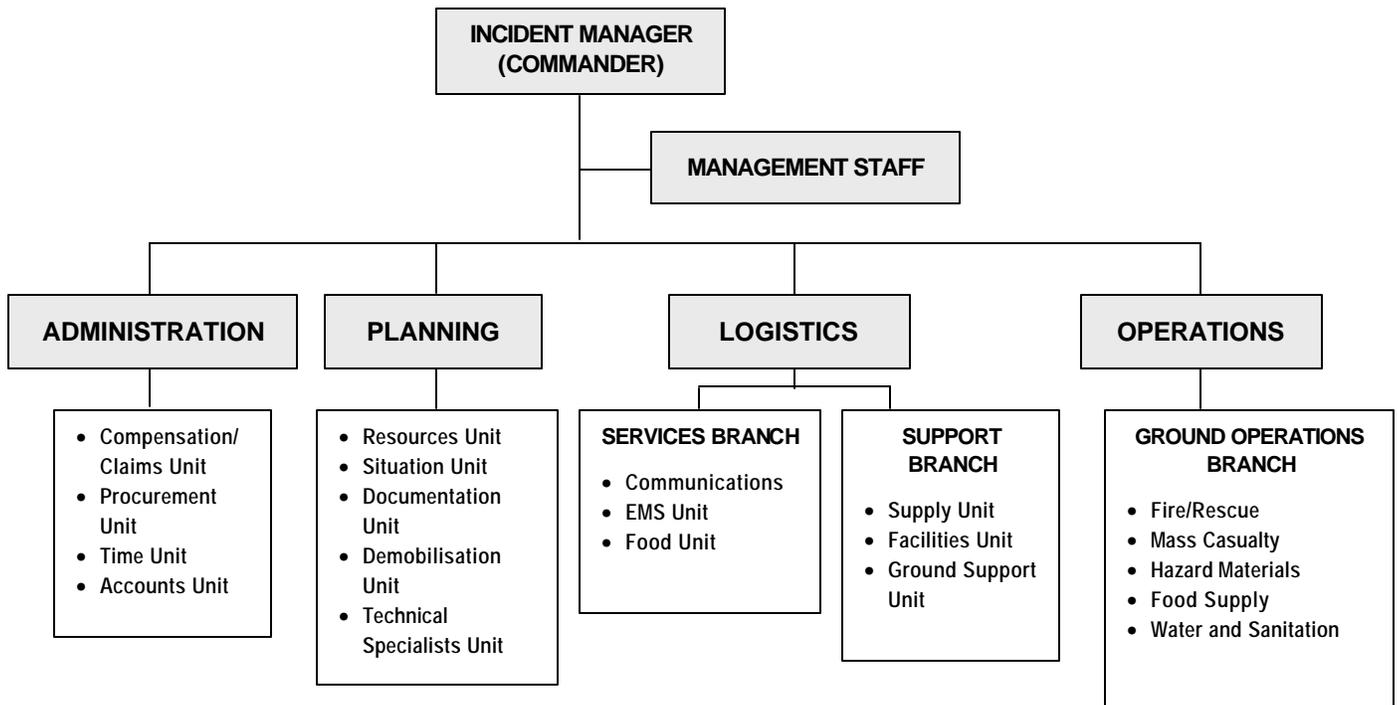
- management staff
- section chiefs
- branch directors
- unit leaders in the operation's support sections (logistics, administration, and planning)

Having an Overhead Team does not mean that the Incident Manager is giving up authority. It means that with support from such a team, the Incident Manager can co-ordinate the emergency response more effectively and stabilise or restore essential services much faster. Members of the Overhead Team are usually experienced in responding to large-scale disasters as well as in giving commands. See the last section for details on Training an Overhead Team.

FULL STRUCTURE AND ORGANISATION OF THE IMS

A model of the full organisation of the IMS structure is shown in the Figure below. This model is the actual IMS structure for managing wild fires. It can easily be adapted to any humanitarian emergency.

Figure 10-2: Full Structure of the IMS Sections and Their Units



The Four Sections of IMS

Successful response to any emergency depends on the proper and efficient functioning of *all* sections of the IMS: **administration, planning, logistics, and operations.**

Note: *These sections are also essential for non-emergency activities. Managing a business, running a power generating station or raising a family all require the principles of IMS.*

Administration Section

The Administration section addresses the problems of prolonged deployments. It does this through its four units: finance or accounts, time keeping, worker’s compensation, and procurements. Many humanitarian projects have these units in place. The following table summarises the function of each unit.

Table 10-3: Structure of the Administration Section

UNIT	FUNCTION
Time	<ul style="list-style-type: none"> Record personnel time for pay purposes.
Compensation/ Claims	<ul style="list-style-type: none"> Administer to worker injuries and process other claims relating to the incident.
Accounts	<ul style="list-style-type: none"> Analyse cost data and provide cost estimates and cost saving information. Disburse payments for locally purchased equipment and supplies, pay for casual labour.
Procurement	<ul style="list-style-type: none"> Attend to all matters relating to vendor contracts.

Planning Section

During major humanitarian emergencies, relief managers are responsible for planning and directing the emergency response. They often begin with a needs assessment to identify the main threats and priorities, based on the nature and magnitude of the emergency. However, as the extent, duration, or complexity of the emergency increases, there is an increased need for a Planning section. This will ensure a more effective proactive, rather than reactive, response.

In IMS, Incident Managers usually have a pre-defined plan for responding to disaster incidents, including humanitarian emergencies. The Planning section is responsible for producing an **Incident Action Plan (IAP)**, through the Incident Manager and other section chiefs. This IAP is flexible because it is literally developed “on the move,” in response to the rapidly changing dynamics of the emergency situation.

To ensure adequate support of the Operations section, the Planning section is organised into five units, which carry out different activities, such as collecting, analysing, and storing information, estimating available resources, etc.

The following table summarises the five units of the Planning section.

Table 10-4: Structure of the Planning Section

UNIT	FUNCTION
Situation	<ul style="list-style-type: none">• Collect and display incident status and situation information.• Evaluate, analyse, and display information for IMS decision makers.
Documentation	<ul style="list-style-type: none">• Collect and file all documents relating to the incident.
Resources	<ul style="list-style-type: none">• Prepare and maintain display charts of the status of vehicles, equipment, and resources.• Maintain a master check-in list of all resources.
Technical	<ul style="list-style-type: none">• Possess technical expertise in disciplines needed for the effective management of the incident.
Demobilisation	<ul style="list-style-type: none">• Prepare the demobilisation plan.• Assist the general staff in the effective and orderly movement of units and personnel from the incident.

Logistics Section

Humanitarian emergencies are in constant need of resources. In complex and chronic emergencies, resources are always inadequate. As a result, the demands for logistics are endless. Radio networks fail or require expansion and vehicles run out of fuel. The demand for medical supplies, security, food, water, etc. increases as the population size grows.

The importance of logistics in IMS cannot be over-emphasised. When logistics fail, operations fail. Unfortunately, no IMS system can deliver resources, equipment, and supplies that are not immediately available or that pre-disaster planning has not identified for access and deployment. If the Operations staff are considered the stars of the show (and rightfully so), then the logistics staff are the “operational anchors” that enable successful delivery of services. Logistics functions are not appreciated until resources become scarce. Thereafter, because of lack of equipment, supplies, fuel, or communications, operations units become unproductive or function at a reduced capacity.

The Logistics section is divided into a *support branch* and a *service branch*, each consisting of different units for specific tasks of the logistics mission. The service branch consists of a communications unit, a medical unit and a food unit, which address the personal needs of relief workers. The support branch consists of a supply unit, a facilities unit, and a ground support unit.

The following table summarises the structure and function of the Logistics section:

Table 10-5: Structure of the Logistics Section

BRANCH	UNIT	FUNCTION
SERVICE	Communications	<ul style="list-style-type: none"> • Develop a communications plan. • Distribute communications equipment. • Manage the communications centre.
	Medical	<ul style="list-style-type: none"> • Develop a medical plan for the IMS team. • Provide medical care for IMS personnel.
	Food	<ul style="list-style-type: none"> • Develop a food plan for the IMS personnel. • Prepare and serve food, and provide potable water to IMS personnel.
SUPPORT	Supply	<ul style="list-style-type: none"> • Order personnel, supplies, and equipment. • Receive and store supplies, and maintain a supply inventory.
	Facilities	<ul style="list-style-type: none"> • Layout and maintain tents, buildings, and structures.
	Ground Support	<ul style="list-style-type: none"> • Fuel, maintain, and service all vehicles and equipment. • Establish an incident transportation plan.

Operations Section

Operations is the most visible section of a humanitarian emergency response because it is involved with the dynamic, hands-on functions. Most disaster response activities will be carried out by the Operations section.

In the IMS structure, the Operations section is divided into two branches:

- **Air Operations Branch** — these branches may be set up for emergencies that require the use of fixed-wing or rotary-wing aircraft. For such emergencies, an air support branch would be needed for fuelling and maintaining the aircraft.
- **Ground Operations Branch** — various ground operations branches may be set up during a humanitarian emergency to service the needs of the disaster-affected population. Examples of Ground Operations Branches are listed below:
 1. *Relief* — food, water, and shelter.
 2. *Disease Control* — sanitation, immunisation, vector control.
 3. *Basic Health Care* — treatment of injuries and common diseases.
 4. *Public Works* — building and maintaining facilities and road infrastructure.
 5. *Security* — proper site planning, camp security, internal law enforcement.
 6. *Fire Protection* — fire prevention and suppression/rescue.

Rapid Assessment and Intervention Team (RAIT)

Information about a potential humanitarian disaster is usually received in a fragmented manner during the early stages of the event. This is especially true when an incident occurs in a developing country with a poor communications system, or during the initial stages of a complex humanitarian emergency.

A Rapid Assessment and Intervention Team (the RAIT Team) can respond quickly to the incident. The objective of a RAIT Team is to perform an initial assessment and establish a basic command centre. A RAIT Team consists of six to eight members. All members are trained and have experience with the Incident Management System (IMS). In addition, each team member has special training to perform their duties, as listed below:

1. **Incident Manager** — manages all team operations and serves as a liaison to the host government; establishes the initial command centre.
2. **Logistics Specialist** — conducts logistics evaluation to determine the need for food, water, medical supplies, facilities, security, supplies, ground support, and where necessary, air support.
3. **Communications Specialist** — establishes an emergency communications system; surveys in-country communications resources; determines long-term communications infrastructure requirements.
4. **Planning Specialist** — assists the manager in preparing a daily incident action plan; develops a situation status system; establishes resource tracking.
5. **Medical Specialist** — conducts a medical and epidemiologic assessment; determines medical treatment requirements; surveys public health procedures.

The information gathered by the RAIT Team is necessary for understanding the nature and scope of the disaster and the type of assistance required, including the composition of the Overhead Team. The RAIT Team also has to set up an effective command system, using personnel from various organisations.

Note: *The RAIT Team is not part of the Incident Management Team.*

IMS LOGISTICS, COMMUNICATIONS, AND OPERATIONAL SAFETY

Logistics

A push logistics system is needed to support a major disaster response in the early stages; pull logistics are required to sustain the mission.

Humanitarian response may use either push logistics or pull logistics. In a **push logistics system**, standard quantities of equipment and supplies are estimated, and stored, ready to be quickly “pushed” to the scene. In a **pull logistics system**, equipment and supplies are ordered after the need is determined. Response to humanitarian emergencies often begins with push logistics. Pull logistics are essential in long duration events, but totally ineffective in the early minutes/hours of a sudden-onset humanitarian emergency.

The following steps can be used to establish a functioning logistics system with adequate resources:

1. Store standard pre-packaged kits in strategic international locations. For example, the New Emergency Health Kits (described in the *Health Services* chapter), communications equipment, administrative supplies, power generators, tents, food, and water purification equipment. These kits are critical for an effective initial response to humanitarian emergencies.

2. A pull logistics system must be planned to support the initial push effort. This system has to function for the duration of the humanitarian emergency event. It should have the capacity for restocking the warehouse, as well as requirements in the field.
3. Supplies should be procured as locally as possible, either from the host government, or private resources within the host country. However, logistical planning should assume that developing countries are seldom able to support all logistics requirements for a humanitarian response. Therefore, an appropriate logistics system for meeting these requirements should be constructed and sustained within a developing region.
4. Pull logistics are transportation intensive, especially in remote areas. Developing countries rarely have the vehicles and road infrastructure to easily support extended humanitarian missions. Therefore, long-term financial support is necessary to sustain logistics.

Communications

Effective communications, global in scope, are an essential element in a humanitarian emergency IMS.

Good communications is critical when responding to humanitarian emergencies. Only food, water, and security outrank communications in terms of importance. However, regular provision of food, water, and security is not possible without good communications.

This section focuses on the management of communication systems. For technical details on communications systems, please refer to the *New Technologies in Humanitarian Emergencies* chapter.

Key Points

1. A pull logistics system cannot function without communications.
2. Communications is essential for inter-government and NGO co-ordination.
3. Communications is a critical element in internal security and perimeter security.
4. At a minimum, Overhead Teams should have internal communications with logistics sources at the disaster site. These communications resources may be scarce or unavailable in many developing countries.
5. Plans for communication systems in developing countries must assume that there will be limited communications infrastructure in the affected region.

Operational Safety

Safety is an incident manager's responsibility; a safety officer should be assigned early.

Safety is an under-appreciated concern of humanitarian response. Many humanitarian operations involve sending relief workers into dangerous and unstable situations. The death, injury, or hostage-taking of relief workers can work against a successful relief operation. Therefore, one of the Incident Manager's most important duties in humanitarian emergencies is to ensure safety. As soon as the Incident Manager cannot directly supervise all the safety issues of a humanitarian emergency, a Safety Officer should be recruited to oversee the safety function.

In major humanitarian emergencies, the Safety Officer works closely with the Incident Manager, the Planning section and the existing Operations branches. Together, they evaluate each **Incident Action Plan (IAP)** for safety as it develops or evolves. The best place to stop unsafe ideas is in the planning stage before aggressive operation plans turn into dangerous activities. The Safety Officer has authority to temporarily suspend any plan, procedure, or strategy that he or she considers to be unsafe. Therefore, every IAP needs a Safety Officer's approval, and every Incident Manager's briefing must include a safety briefing.

Complex emergencies create increased demands for safety, particularly when they are surrounded by violence, war, or civil unrest. Response to complex emergencies requires a *team* of safety personnel, led by the Safety Officer. Each member of the safety team has team-specific skills. For example, medical teams must have an outbreak control officer; security teams require a weapons safety officer. These team-specific safety officers share the workload and responsibility of ensuring safety in the emergency response.

For details on Staff Security, see the *Human Resource Management* chapter.

UNIFIED MANAGEMENT AND CIVILIAN-MILITARY CO-ORDINATION

Unified Management (Command)

Humanitarian emergencies are complex incidents. A disaster may occur on the border between two cities, between a city and a province, or between civilian and government land. Some events may actually occur in one nation, yet its effects spill over into a neighbouring nation (e.g., a country may have to deal with an influx of refugees). As a result, they may demand responses from multiple governments and organisations.

The best way of responding to these dilemmas is a concept called **unified management**. Unified management is the teaming up of agencies and individuals that have either geographic or functional responsibility in a unified management structure and a common set of objectives. For example, a local health official and an Incident Manager may jointly manage a refugee operation. In another case, the district authorities and an Incident Manager may manage an event that crosses a geo-political boundary through a unified management approach.

An effective plan must establish the concepts of incident management and unified management. When there are political issues, establishing who will take charge is vitally important. If all parties agree to the plan, destructive, political "turf wars" are avoided.

Civilian-Military Co-ordination

IMS is an effective management tool for integrating civilian/military operations.

IMS provides an appropriate means for collaborating with military units. This is because IMS is based on the same principles as the military command and control systems of NATO countries. Military organisations and special units have staff officers that are identified by their command functions as follows:

- S-1 administration
- S-2 intelligence
- S-3 plans/operations
- S-4 supplies/logistics

At each section level, the military system is almost identical to the civilian IMS. The difference is in terminology. For example, a military commander refers a logistics problem to his or her S-4. A civilian commander refers a logistics problem to the Logistics section chief. If military officers fully understand the civilian terminology, adapting to the civilian IMS system is possible. Likewise, by understanding military command/control terminology, civilians can fit military units into the IMS. Emergency response plans or protocols can be developed jointly by government organisations, non-government organisations, and the military units.

Unified management can also be effective for joint civilian-military operations in humanitarian disasters. Many military officers have asked, “How can we work with civilians? We are not used to going somewhere and not being in charge.” The answer is IMS unified management (command), and branching. In unified management, the military commander is part of the management team along with the civilians. This ensures that the military commander has access to information on all issues, communications, plans, etc. This system keeps civilian leaders in contact with the military effort.

The following steps can be taken to integrate IMS with the military command/control system:

1. The military commander works closely with the unified management team.
2. Military units are assigned to security, mass casualty, or other appropriate branches.
3. The military team provides its own administration and planning (S-1 and S-2).
4. The military logistics officer (S-4) co-ordinates with the local logistics section chief.

At the operations level, military units may either be asked to work with an existing civilian branch or as a separate branch. Military staff may carry out support functions separately or integrate them into the corresponding civilian section. For example, military units have special communications and logistics plans that are only for internal uses. On the other hand, the civilian logistics section provides supplies, equipment, and facilities to build the capacity of the local level.

The civilian IMS has already been tested during joint responses by the military and civilians to wildfire incidents in the United States. Marines and soldiers were given basic fire fighting and IMS training and divided into crews with a civilian liaison. This system worked well and can be applied in a similar way to humanitarian emergencies. However, most military officers are not aware that the IMS or ICS exists in the humanitarian community. A basic IMS awareness course for military officers involved in civilian missions is highly recommended.

TRAINING IN IMS

This chapter has emphasised the fact that the Planning and Logistics sections are complimentary to the Operations section. After gaining experiences from several humanitarian emergencies, most relief organisations have standardised their Operations section. Many provide basic training to their relief workers and certification in various disaster response measures (e.g., rapid assessment, nutritional surveys, cholera preparedness, etc.)

However, the Logistics and Planning sections of most agencies can only support normal operations. During major humanitarian emergencies, new problems may arise because of insufficient expertise in logistics and planning. As a result, the functioning of the Operations section may be disrupted or arrested. Organising basic pre-disaster IMS training for Overhead Team members can ensure an effective and co-ordinated relief

response. Overhead Team members may require additional training in the following: incident management system, mass casualty operations, security, media relations, etc.

Training an Overhead Team

There are many reasons why it is necessary to train an Overhead Team:

- An Overhead Team can comprise of members from different agencies or cities. Because each Overhead Team member is nationally certified (also known as being “red carded”) to occupy a particular management position with the IMS, a logistics leader from one town can be assigned to an Overhead Team in another town.
- A most difficult step in forming the Overhead Team is overcoming inter-government and inter-agency politics. Most governments insist on handling matters internally until they get hopelessly overwhelmed. It requires great diplomacy to convince a local government official that a logistics section chief from the WHO is the most appropriate person to support a major refugee operation.
- Other agency directors need to realise that establishing Overhead Teams does not take away their authority. The appropriate agency or individual assumes command for the emergency response, and maintains it.
- Having an Overhead Team increases the chances that the emergency response will be co-ordinated and, therefore, more effective.

Thus, adopting the IMS management strategy before a disaster allows for better co-ordination between potential partners in disaster response, and better use of resources. The following steps can be used to develop an inter-agency Overhead Team:

1. The IMS provides a standard, organisational framework for emergency operations.
2. All responders to an emergency are trained and certified to take on their IMS positions.
3. Joint training and practical exercises are conducted so players can develop a sense of trust.

Practical IMS Exercises

Carrying out exercises on humanitarian emergency response can greatly enhance training in IMS. Practical exercises may also help test one or two functions of the inter-agency response system, e.g.: communications, logistics, unified management, mass casualty operations, sanitation, operational readiness, air operations, security, medical transport, and media relations. Practical cases should include realistic scenarios, e.g., by reproducing experiences of one or more humanitarian emergencies that occurred during the year.

Emergency managers who are certified in training should design and implement the exercises. The key steps in planning practical IMS exercises are as follows:

1. Determine critical components of the IMS to be tested, e.g., push logistics.
2. Create a realistic scenario.
3. Co-ordinate the players on the Overhead Team.
4. Use the IMS model to organise the exercises. The actual exercise will require operations, logistics, planning, and administration.
5. Appoint an exercise controller and evaluators who are non-participants and unbiased.
6. Ensure adequate funding for the exercise. Be realistic about overtime and supply costs.
7. Insist that safety is the key factor in the exercise. (People have been killed in exercises.)
8. Document the exercise — record it on videotape, take pictures, and write about it.
9. Summarise the exercise results in the form of lessons learned.

10. Hold an after exercise briefing — a Post Incident Analysis (PIA). Candidly, but tactfully, point out shortcomings, and stress all the positive results. Incorporate the findings within the existing response protocol.
11. Most importantly, establish realistic and measurable goals for implementing changes.

The above exercises allow relief agencies to test capabilities not frequently tested in day-to-day operations, as well as the opportunity to test response protocols for effectiveness. At least twice per year (quarterly is even better), all humanitarian and emergency response agencies should conduct joint exercises.

Note: *New training technologies, such as distance learning and virtual universities, can be used to advance Overhead Team training.*

SUMMARY OF THE INCIDENT MANAGEMENT SYSTEM (IMS)

The Incident Management System is an effective tool for co-ordinating one or more humanitarian agencies responding to a major humanitarian emergency. The IMS is based on the following key points:

1. The Incident Management System (management, operations, logistics, planning, and administration) is the ideal structure for any disaster response.
2. The management system is expanded from the bottom to the top (“bottom-up”). As needs change, the systems expands (or contracts) as required.
3. The system is designed for effective liaison between government and non-government agencies (NGO), as well as military units.

An Incident Manager, supported by management staff, supervises the IMS operations, logistics, planning, and administration sections. The Planning section develops an Incident Action Plan (IAP) that co-ordinates the activities of all section chiefs. The Operations section is divided into branches that deliver emergency services to disaster affected populations, such as food distribution, water supply, shelter, health care, and security. The Logistics section is divided into the service branch and support branch. Logistics functions are not appreciated until resources become scarce. An Administration section is necessary for prolonged humanitarian emergencies to address issues such as worker’s compensation, time keeping, and finance.

Because the IMS structure is very similar to the NATO military command/control systems, military and humanitarian agencies can use the IMS model for a more co-ordinated response to a humanitarian emergency. This can be achieved through basic IMS training for both civilians and the military personnel.

APPENDIX

Disaster Medical Operations

Following disaster events, a heavy influx of those affected by disasters into hospitals commonly results in increased morbidity and mortality as well as prolonged stays. A pre-hospital component can lessen the overall impact of a disaster. By providing care to victims suffering minor injuries or illnesses, the pre-hospital component frees-up medical assets for more critical tasks. It also helps to restore the normal function of hospitals by reducing the workload and fatigue of hospital workers, enabling them to attend to or follow-up other emergency cases. Fewer people will die or suffer permanent disability if the pre-hospital component is included in a global disaster response.

A **Medical Emergency Rapid Intervention and Triage Team (MERIT Team)** could manage a pre-hospital component. It may be comprised of emergency medical technicians (EMTs), paramedics, and an EMS management team. Trained MERIT teams would alleviate a hospital crisis by systematically identifying, treating, and releasing those individuals not requiring hospital or physician services.

Emergency Medical Aid Centres (EMACs) can be established to filter victims having non-critical cases away from hospitals. When properly constituted, an EMAC can process an average of 864 casualties every 12 hours. Through triage, victims are assured proper care for everything from minor injuries to life-threatening illness or injury.

MERIT TEAM (Medical Emergency Rapid Intervention and Triage Team)

Total number of care teams: 20
Medical Strike Team: 4 care teams + 1 supervisor (total of 13 personnel)
Total number of strike teams: 5 per MERIT Team

Table 10-6: Composition of a MERIT Team

PERSONNEL	NUMBER	FUNCTION
Managers	10	5 functions + 1 Medical Director, 1 MIS Officer + 3 ancillary
Supervisors	5	Duties to include situation/status reports + data collection
Paramedics	20	Care team leaders*
EMTs	40	Care team members*

Care Team = 1 EMT/P + 2 EMTs

Each care team can process 6 victims per hour (72 in a 12-hour day).

Each strike team can process 24 victims per hour (288 in a 12-hour day).

Each MERIT TEAM can process 72 victims per hour (864 in a 12-hour day).

Each Strike Team works a 9-hour day through a rotational system.

Note: For more details about managing a mass casualty incident, please refer to the Health Services chapter.

REFERENCES AND SUGGESTED READINGS

1. *EMS Incident Management System, The: Operations for Mass Casualty and High Impact Incidents.* Hank T. Christen, Paul M. Maniscalco.
2. *Sitting in the Hot Seat: Leaders and Teams for Critical Incident Management.* Rhona H. Flin, Rhonda Flin. Paperback. November 1996.
3. Model Procedures Guide for Structural Firefighting/35669
4. National Fire Service Incident Management System Consortium; Paperback.
5. Model Procedures Guide for Emergency Medical Incidents (The Incident Management System Series)
6. Training videos on Incident Management System -- URL: <http://www.efilmgroup.com:80/iim.html>

Industrial Incident Management is a three-tape video series produced by Emergency Film Group. Copyright 1993, Detrick Lawrence.

The series is designed to provide training to personnel in the industrial sector who may be called upon to set up a workable Incident Management System. The following are descriptions of the three tapes:

- "Taking Control," – discusses setting up the system.
- "Incident Command in the Field," – covers organising the Command Post and designing strategy to deal with the incident.
- "The Emergency Operations Center," – discusses managing the crisis and dealing with the media.

Also included are two publications:

- *Incident Management: a Petrochemical Perspective*, a reference on incident command and incident management by Greg Noll and Michael Hildebrand.
- *Model Procedures Guide for Industry Emergency Response Teams*, (based upon the NFS Model Procedures Guide for structural Firefighting), which will help set up an incident command system for industry.