

MEDICAL MANAGEMENT OF DISASTERS

Instructors Course

Barbados

August 24th to 29th

Sponsored by

Pan American Health Organization

Caribbean Programme Coordinator

Disaster Preparedness Programme

MASS CASUALTY MANAGEMENT INSTRUCTORS' COURSE
PROPOSED AGENDA

Monday, August 24, 1998

- | | | |
|------------|---|-------------------|
| 8:00 a.m. | Opening Remarks and Registration | |
| 9:00 a.m. | <ul style="list-style-type: none">• Introduction• Goals and objectives of two-day workshop• Participants expectations | Ms. Cheryl Holder |
| 10:00 a.m. | Adult Learning/Experimental Learning Cycle | |
| 11:00 a.m. | <i>BREAK</i> | |
| 11:15 a.m. | Nine Step Approach to Training | |
| 12:30 p.m. | <i>LUNCH</i> | |
| 1:30 p.m. | Training Techniques/Styles | |
| 2:45 p.m. | <i>BREAK</i> | |
| 3:00 p.m. | Developing Goals and Objectives | |

Tuesday, August 25, 1998

- | | | |
|------------|---|-------------------|
| 9:00 a.m. | Reflection | Ms. Cheryl Holder |
| 9:15 a.m. | Writing Training Goals and Objectives (Practical) | |
| 11:00 a.m. | <i>BREAK</i> | |
| 11:15 a.m. | Elements of Sessions/Programs | |
| 12:30 p.m. | <i>LUNCH</i> | |
| 1:30 p.m. | Evaluating Training Sessions/Programs | |
| 2:15 p.m. | <i>BREAK</i> | |

2:30 p.m.	Practical Training Group Presentation
4:00 p.m.	Training of Trainers Participant's Workshop Evaluation

Wednesday, August 26, 1998

8:30 a.m.	Introduction	Mr. H. Thani
9:00 a.m.	Opening Desktop Exercise	Mr. H. Thani
9:30 a.m.	Introduction to Mass Casualty Management	Mr. H. Thani
10:15 a.m.	<i>BREAK</i>	
10:30 a.m.	The Alerting Process/Lines of Communications	Mr. H. Thani
11:15 a.m.	Field Organization	Dr. S. Mangru
12:00 p.m.	<i>LUNCH</i>	
1:00 p.m.	Materials for Field Exercises	Dr. S. Mangru
1:30 p.m.	Field Organization – On Field Training	Dr. S. Mangru
3:00 p.m.	First Triage	Mr. H. Thani

Thursday, August 27, 1998

8:30 a.m.	Desk Top Simulation	Lt. L. Cordle Ms. N. Johnson Dr. R. Ragbir
9:15 a.m.	Designing a Major Desk Top Exercise	Dr. M. Brown
10:00 a.m.	<i>BREAK</i>	
10:15 a.m.	Introduction to Mass Casualty Management	Mrs. C. Bottaro Lt. M. Patrick Mr. J. Thornhill

10:45 a.m.	Field Organization	Mrs. V. Wheatley Mr. W. Cadogan
11:30 p.m.	First Triage	Mr. D. Fraser Mr. A. Botelho
12:15 p.m.	<i>LUNCH</i>	
1:15 p.m.	Second Triage/Advance Medical Post	Mr. H. Thani
1:45 p.m.	Third Triage/Evacuation/Transport	Dr. R. Bascombe-Adams
2:30 p.m.	Field Exercise X3	Dr. S. Mangru Dr. Bascombe-Adams

Friday, August 28, 1998

8:30 a.m.	The Command Post	Mr. H. Thani
9:00 a.m.	Hospital Reception	Dr. Bascombe-Adams
10:00 a.m.	<i>BREAK</i>	
10:15 a.m.	Logistics	Dr. S. Mangru
11:00 a.m.	Planning for Disasters	Mr. H. Thani
12:00 p.m.	<i>LUNCH</i>	
1:00 p.m.	Second Triage	Dr. S. Abraham Dr. E. Fiere
1:30 p.m.	Third Triage Evacuation Transport	Dr. G. Mitchell Mr. T. Hosein Ms. V. Lewis
2:00 p.m.	Public & Mental Health	Dr. Bascombe-Adams
2:30 p.m.	<i>BREAK</i>	
2:45 p.m.	The Command Post	Sgt. P. Burgess Ms. L. Navarro Dr. R. Ragbir

3:30 p.m.	Planning For Disasters	Ms. S. Dabreo Mr. L. Newton Dr. S. Abraham
4:30 p.m.	Hospital Reception	Dr. G. Egmann Mr. P. Newbold Dr. S. Keizer
5:00 p.m.	Mental and Public Health in Disasters	Dr. N. Aderibigbe Dr. Tjon Sie Fat

Saturday, August 29, at the Barbados Defence
Force

12:00 p.m.	<i>LUNCH</i>
1:00 p.m.	Designing a Major Desk Top Exercise
2:00 p.m.	Field Exercises
9:00 p.m.	End of Field Exercises

1. Objective:

The objective of this course is to provide trained instructors in the Medical Management of Disasters in most, if not all, countries of the Caribbean. The instructors will be required to plan and conduct training in their countries. They should also be willing to assist other countries in their planning and training.

Medical Management of Disasters focuses on the establishment and maintenance of a mass casualty system as a mechanism for saving lives, preserving function and reduction of suffering in a mass casualty incident. It emphasizes the involvement and coordination of responders in key sectors including health, police, fire and rescue services, civil defense, military civil aviation and non-government organizations in the operation of the system.

2. Modules:

The course is divided into three modules:

- I. The Methodology of Teaching: August 24th & 25th.
- II. Classroom training on topics in the MMD.
- III. On Field Training in the MMD

3. Terminal Objectives

At the end of the course instructors will be able to teach participants to:

- Participate effectively in the implementation and maintenance of a mass casualty system.
- Know the functions and responsibilities of each sector in the mass casualty management system.
- Function as an effective team member in the Pre-Hospital (Field) Management of a Mass Casualty incident.

- Demonstrate skill in assessing victim status (on site triage).
- Demonstrate skill in radio communication.
- Participate in patient transfer organization.
- Understand the principles and procedures of Hospital Organization.
- Be aware of the impact of disasters on public and mental health.
- Understand the principles and components of disaster management.
- Perform functions as determined by capability.
- Recognize when the emergency situation is beyond their area of expertise.

4. Methodology

Teaching/Learning methodologies will include:

Lectures/Presentations
Group work and discussions
Use of audio visual aids
Desktop exercises
Field simulations
Demonstrations
Role-plays

Medical Management of Disasters

Instructors Course

Introduction to Medical Management of Disasters

Introduction to the Medical Management of Disasters

Two Parts:

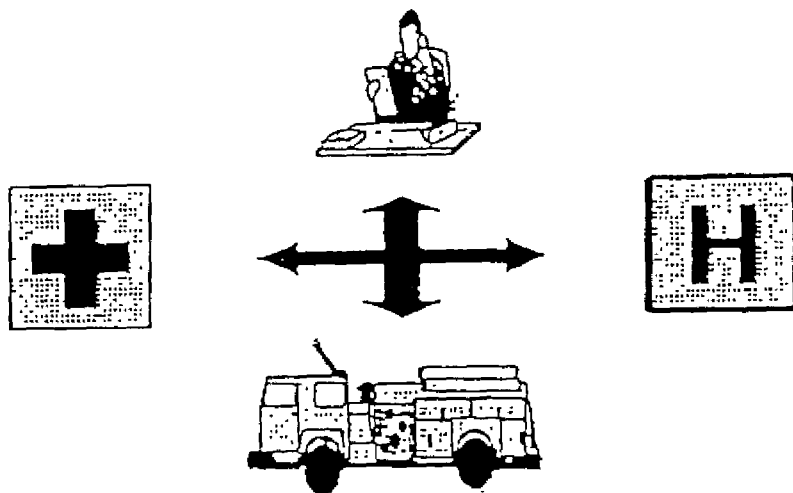
Part 1: Where we are and what are the problems.

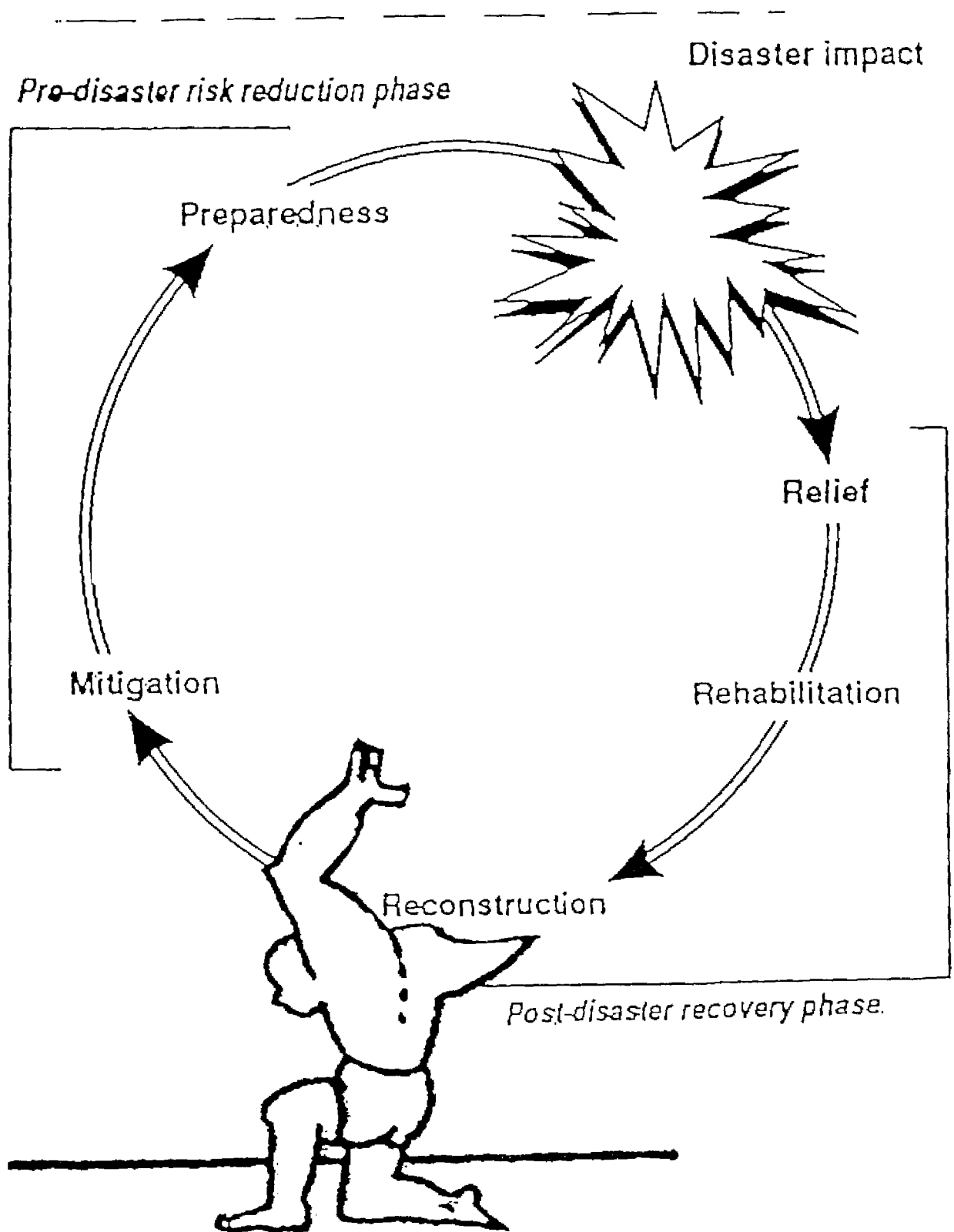
1. Describe the disaster cycle
2. Show the present systems in most countries and their weaknesses
3. Emphasize the need to stop creating a disaster at the Hospital
4. Introduce the concept of the Advanced Medical Post

Part 2 : Disaster Management, whose job is it?

1. Demonstrate the size of the problem in managing a disaster scene.
2. Suggest the need for an organized approach to this management
3. Introduce the concept of a Multi- Sectorial approach
4. Name the personnel required

INTRODUCTION TO MASS CASUALTY MANAGEMENT SYSTEM





Aims of disaster management

- reduce (avoid, if possible) the potential losses from hazards
- assure prompt and appropriate assistance to victims when necessary
- achieve rapid and durable recovery

MASS CASUALTY EVENT

DEFINITION

ANY EVENT RESULTING IN A NUMBER OF VICTIMS
LARGE ENOUGH TO DISRUPT THE NORMAL COURSE
OF EMERGENCY AND HEALTH CARE SERVICES

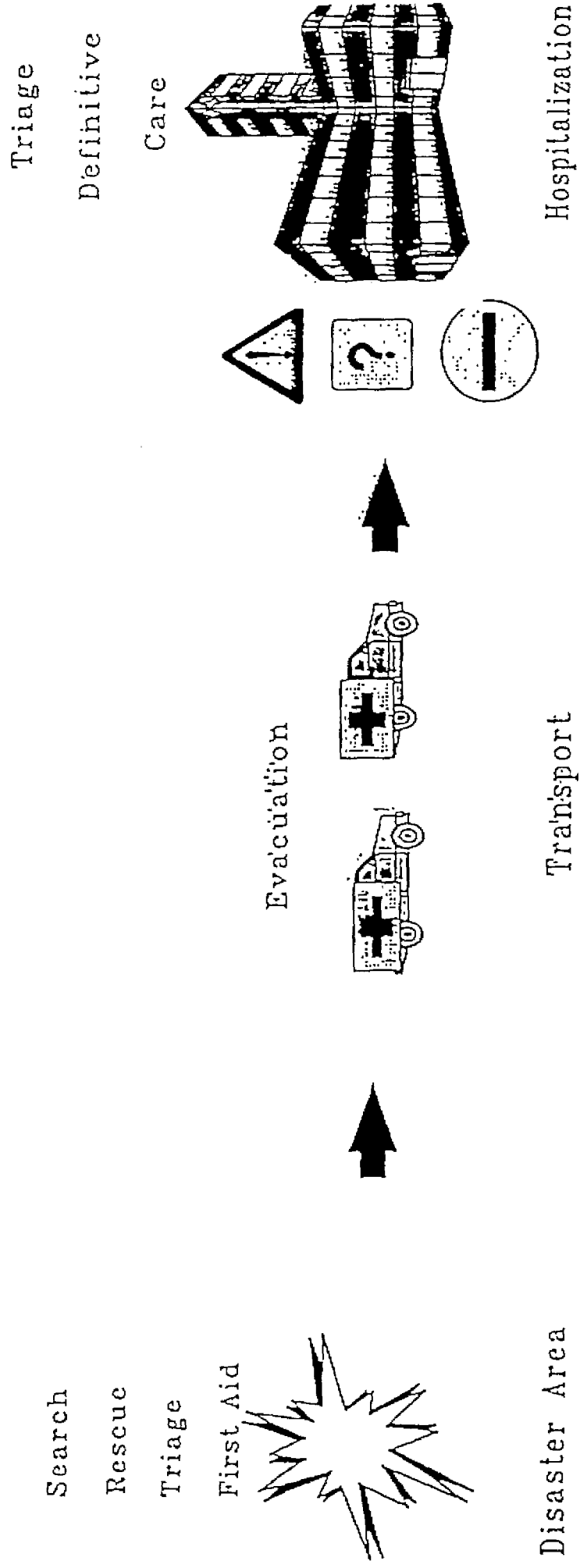
MASS CASUALTY MANAGEMENT

SEQUENCE OF ACTIVITIES

- RESCUE
- TRIAGE
- FIRST AID
- TRANSPORT TO HOSPITAL
- MEDICAL CARE

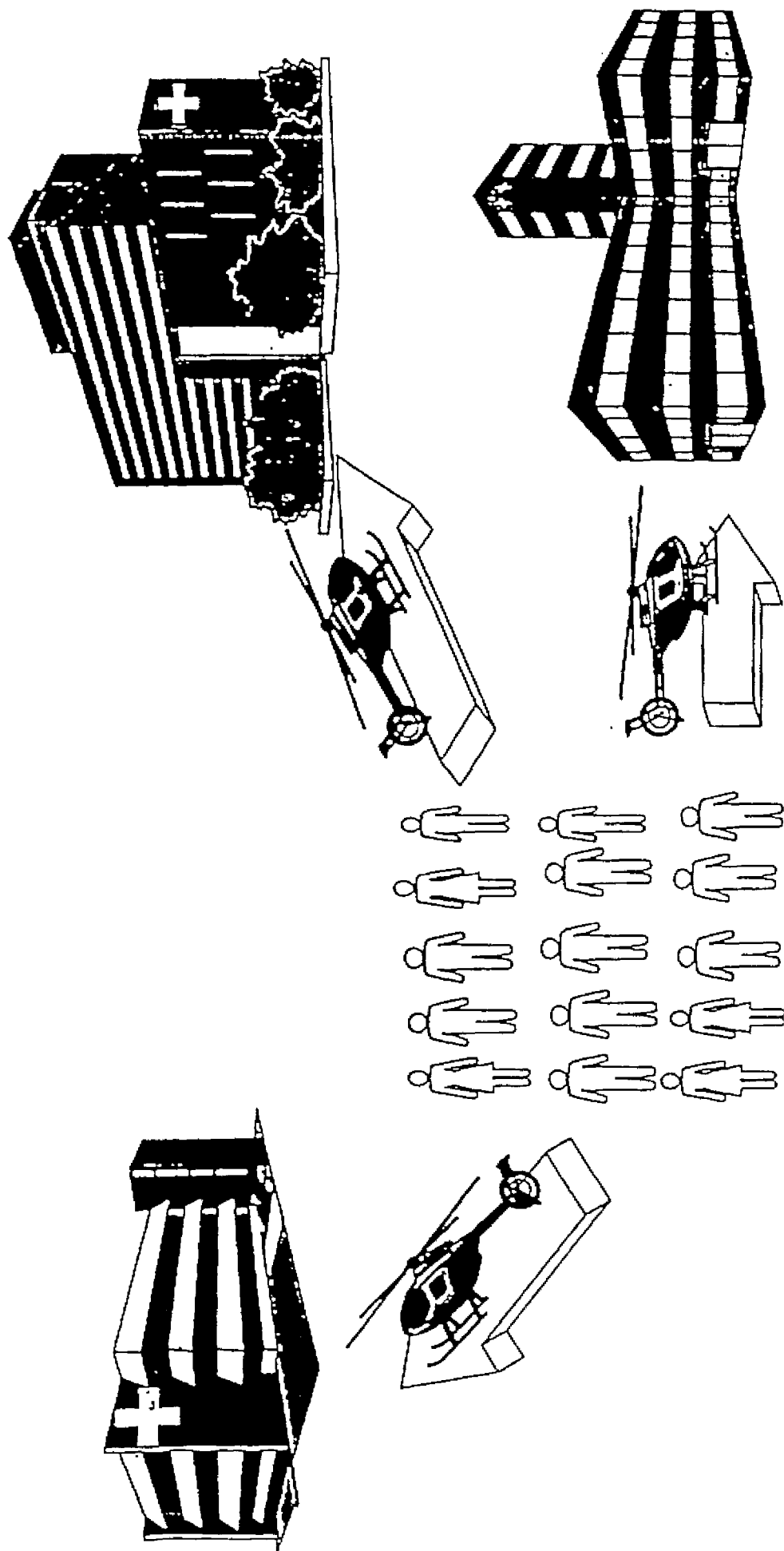
MASS CASUALTY MANAGEMENT

Basic Rescue Chain



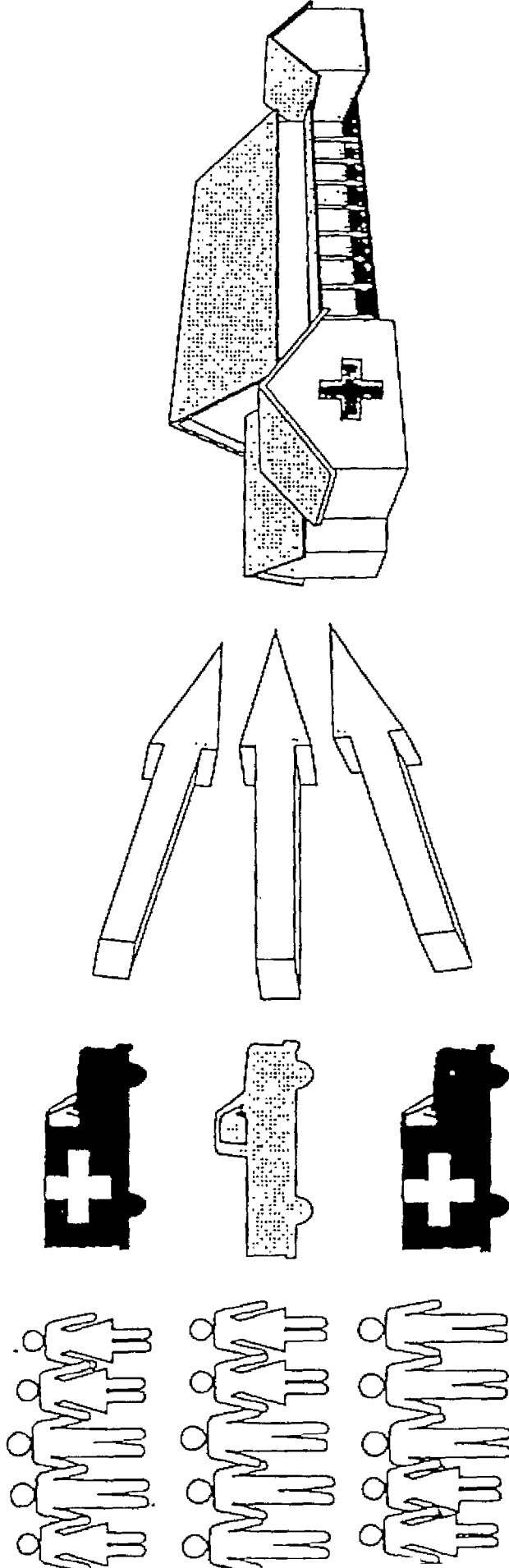
MASS CASUALTY MANAGEMENT

"SOPHISTICATED" APPROACH



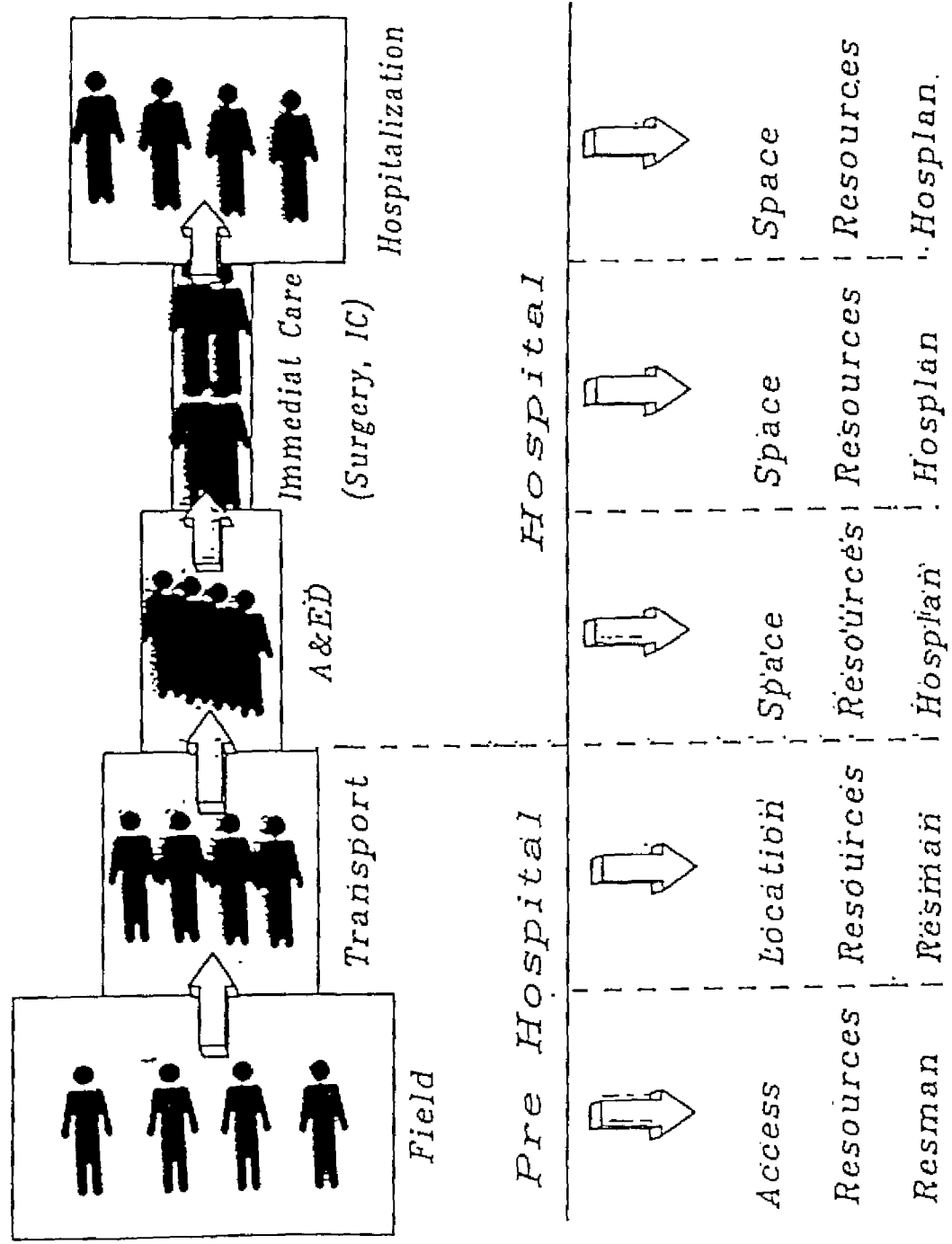
MASS CASUALTY MANAGEMENT

MORE REALISTIC APPROACH ?



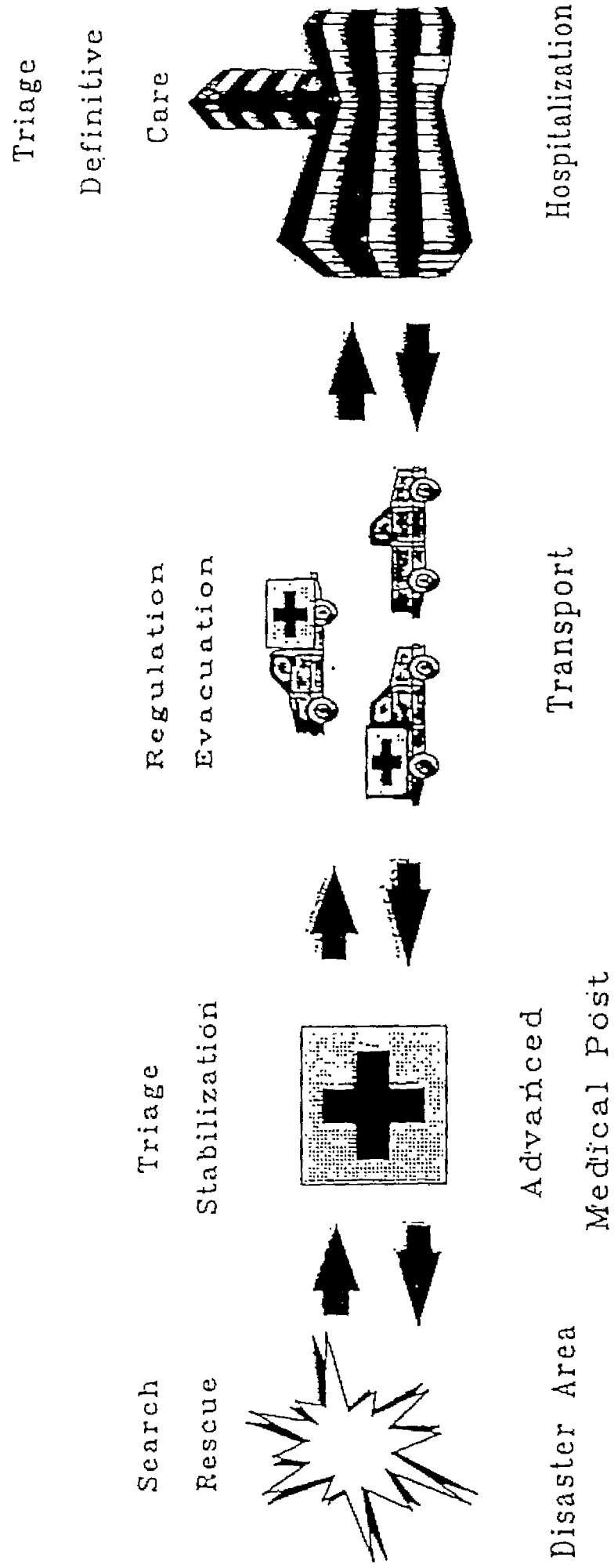
MASS CASUALTY MANAGEMENT

"Multi Bottle Neck" Chain



MASS CASUALTY MANAGEMENT

MEDICAL RESCUE CHAIN



VICTIMS FLOW

A "Conveyor Belt" Management

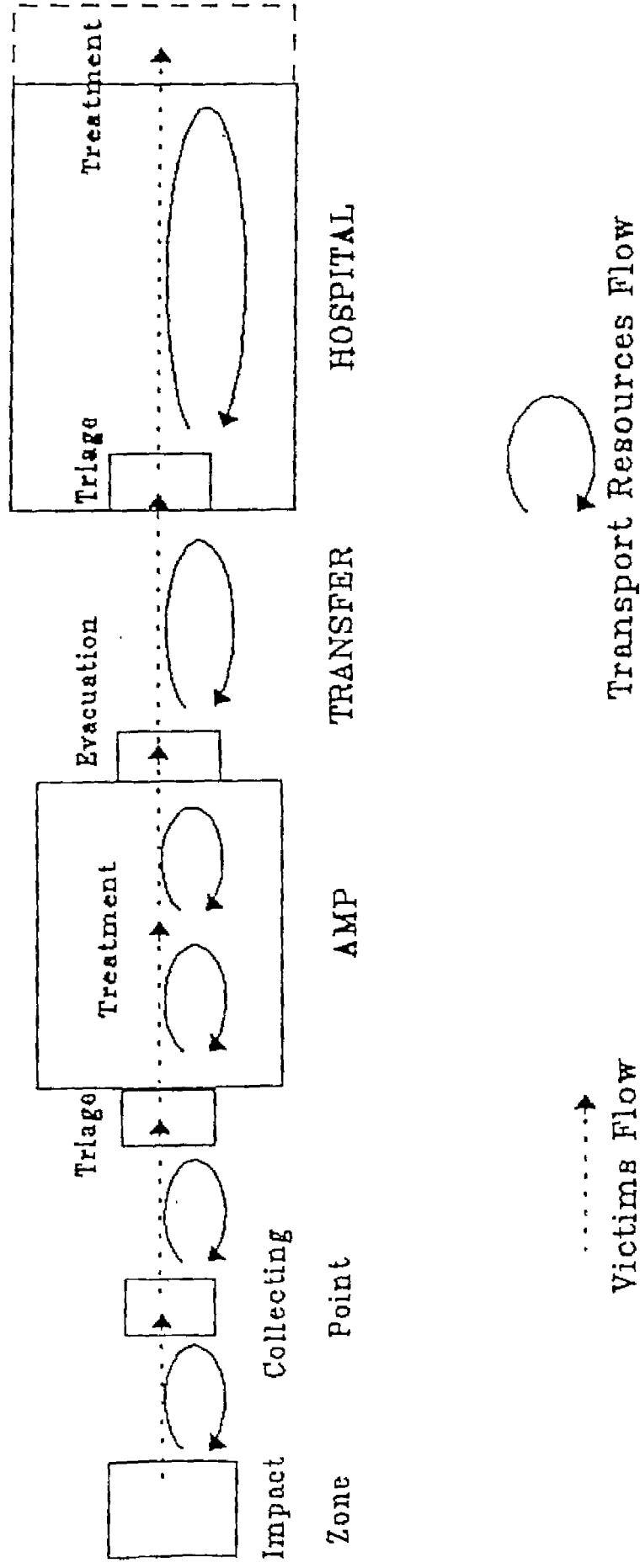


Figure 12

MASS CASUALTY MANAGEMENT SYSTEM THE REALITY

MCMS IS A

MULTI SECTORAL COORDINATION SYSTEM

BASED ON DAILY UTILIZED PROCEDURES

MANAGED BY SKILLED PERSONNEL

IN ORDER TO

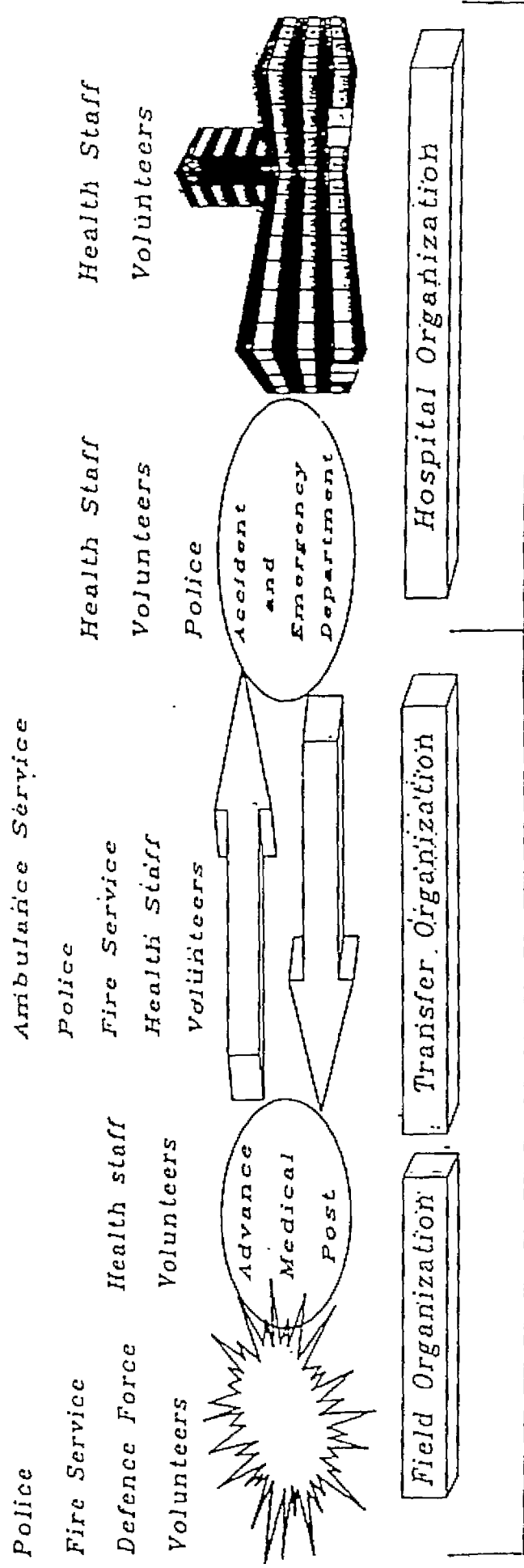
MAXIMIZE THE USE OF EXISTING RESOURCES

PROVIDE PROMPT AND ADAPTED ON SITE TO IN HOSPITAL CARE

ENSURE HEALTH CARE AND EMERGENCY SERVICES RETURN
TO ROUTINE OPERATIONS AS SOON AS POSSIBLE

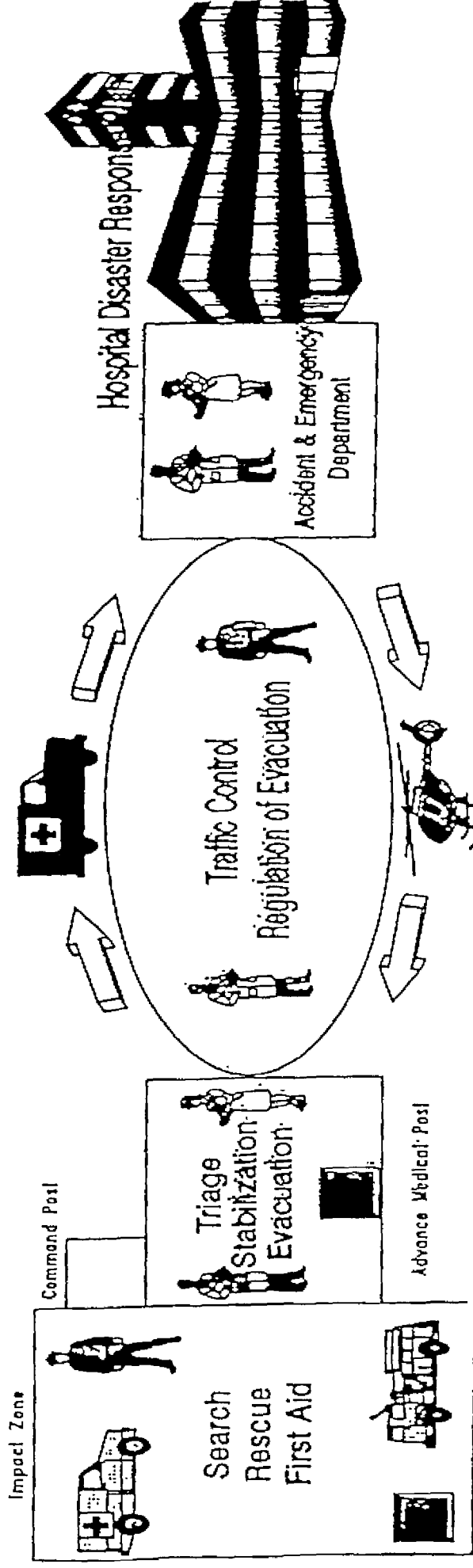
MASS CASUALTY MANAGEMENT SYSTEM

A MULTI SECTORAL ORGANIZATION



MASS CASUALTY MANAGEMENT SYSTEM

A Multi-Sectoral Rescue Chain



PRE HOSPITAL ORGANIZATION

HOSPITAL ORGANIZATION

Multi Sectoral Approach to Mass Casualty Management

Organizations

- **Police**
- **Defence Force**
- **Fire Service**
- **Emergency Ambulance Service**
- **Hospital**
- **N.G.O.**

Multi Sectoral Approach to Mass Casualty Management

Police

- **Security –At Disaster Site
At Hospital**
- **Traffic Control**
- **Crowd Control**
- **Incident Command**

Multi Sectoral Approach to Mass Casualty Management

Fire Service

- **Search and Rescue**
- **Fire Control**
- **Chemical spill control**

N.G.O.

- **First Aid**
- **Supplies Management**
- **Assist with Transport**
- **Communications (HAM Operators)**
- **Psychological Support to: Victims**
Rescuers
Relatives of Victims

Multi Sectoral Approach to Mass Casualty Management

Hospital

- Reception and treatment of victims

Emergency Room

- Provide Personnel at the Disaster site
- May assist staff at the Health Centers
- Reception of Victims at the Hospital

Ambulance Service

- Transportation of Victims to the Health Care Facility

Multi Sectoral Approach to Mass Casualty Management

Secondary Roles

ALL SECTORS

- **Primary Response**
- **Triage**
- **First Aid**
- **Assist other sectors where required**

Medical Management of Disasters

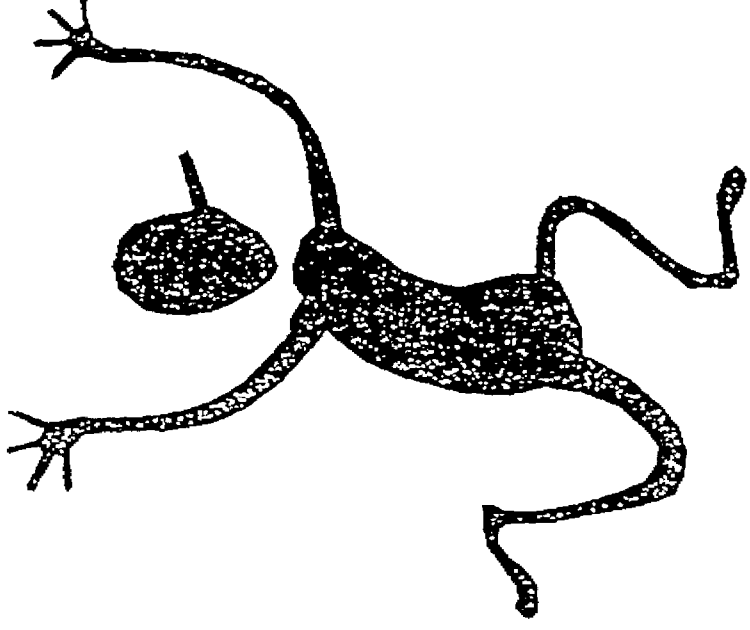
Instructors Course

The Alerting Process

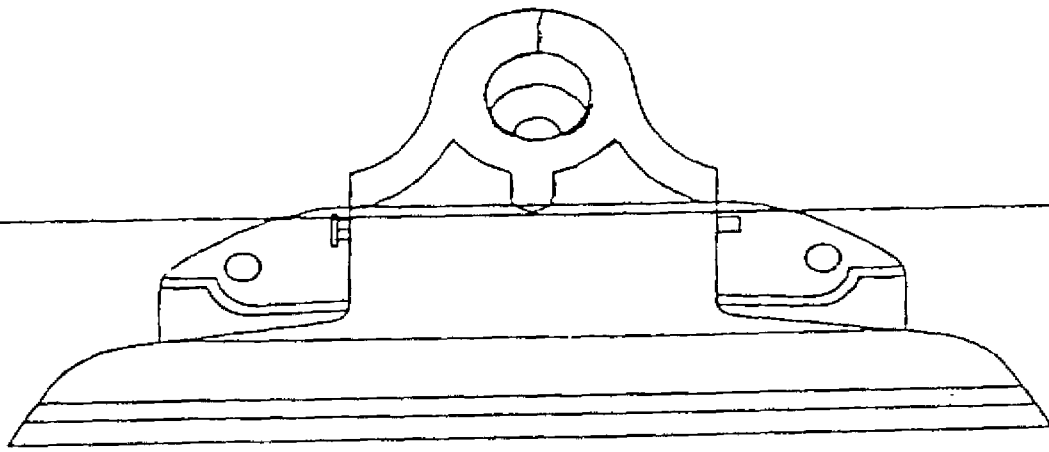
1. Establish need for a call-out process involving all sectors
2. Establish need for a call-out process within each sector
3. Establish a uniform method of reporting by all 1st responders

Pan American Health Organization

MASS CASUALTY MANAGEMENT



The Alerting Process

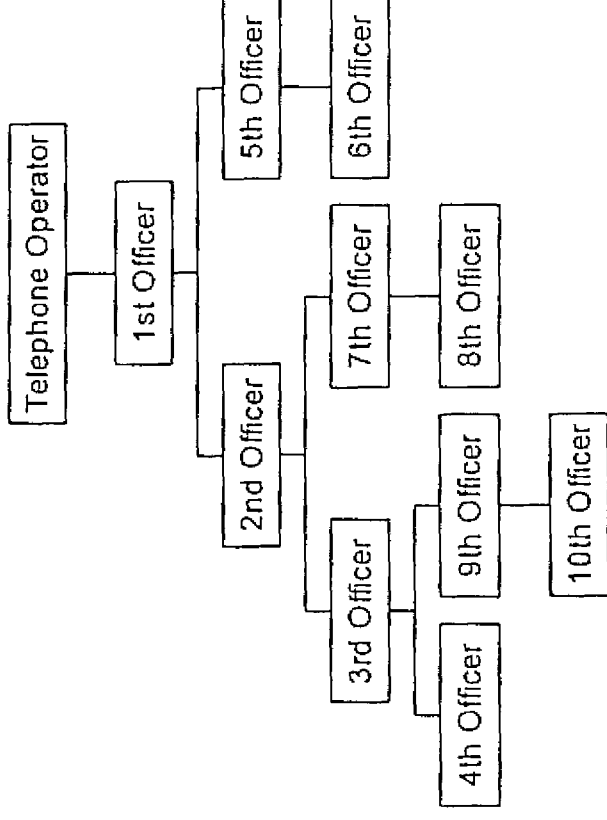


MASS CASUALTY MANAGEMENT SYSTEM FIELD ORGANIZATION CHECKLIST

- SITUATION ASSESSMENT
- REPORT TO CENTRAL LEVEL
- WORKING AREAS PRE-IDENTIFICATION
- SAFETY
- COMMAND POST
- RADIO COMMUNICATIONS
- CROWD AND TRAFFIC CONTROL
- SEARCH AND RESCUE
- TRIAGE AND STABILIZATION
- CONTROLLED EVACUATIONS

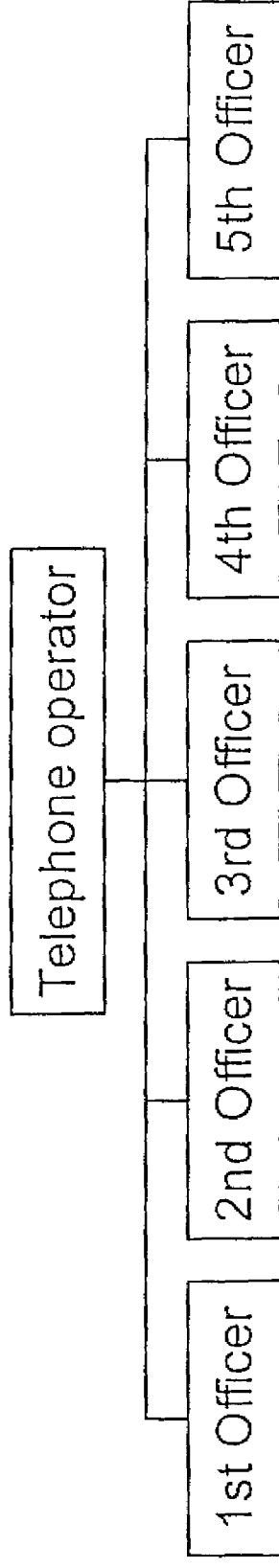
MASS CASUALTY MANAGEMENT ALERTING PROCESS

Method of Communications: 2



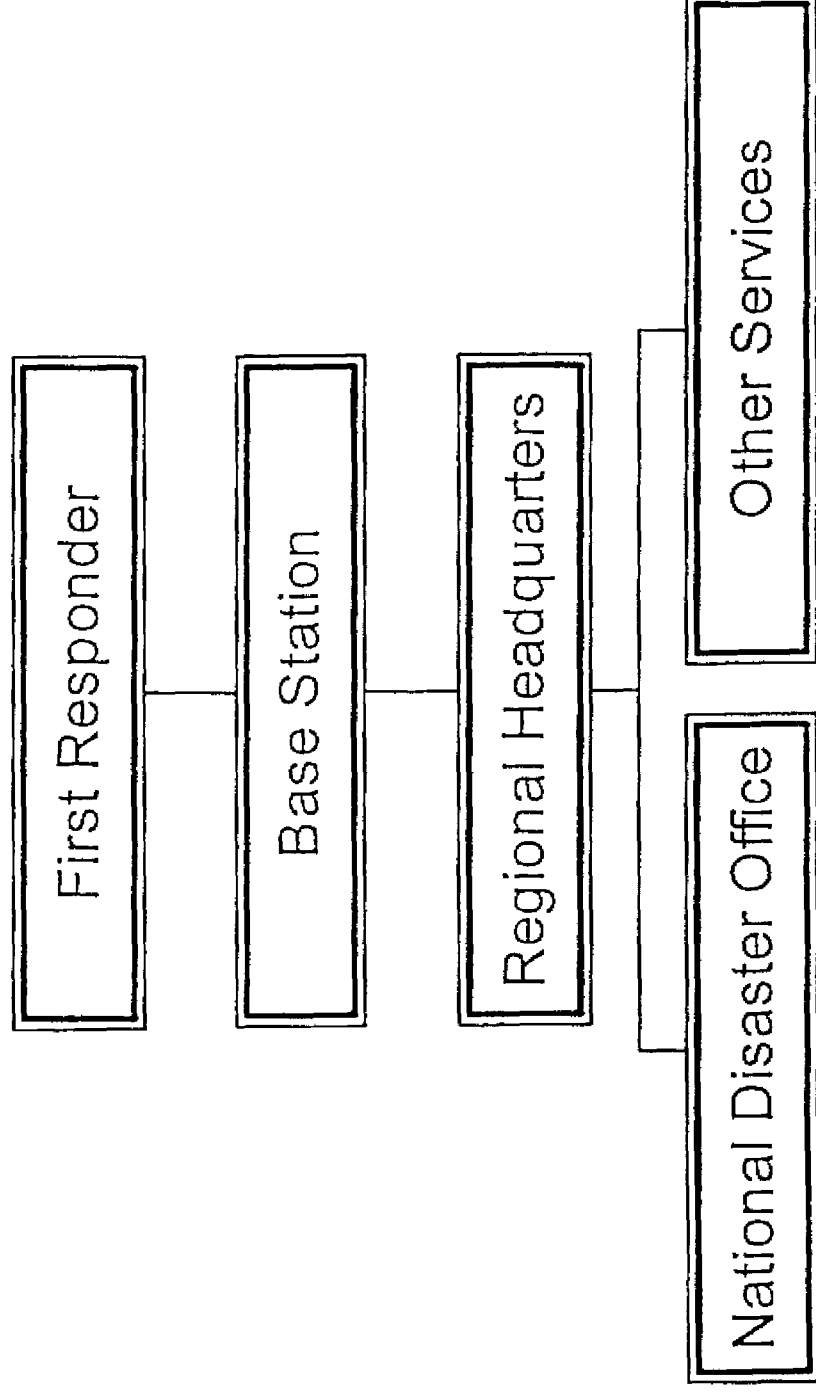
MASS CASUALTY MANAGEMENT ALERTING PROCESS

Method of Communications: 1



Medical Management of Disasters

Alerting Process



Medical Management of Disasters

Alerting Process

Methods of Call Out:

- Radio
- Telephone
- Pagers
- UHF / VHF Radio

MASS CASUALTY MANAGEMENT

ALERTING PROCESS

Pre and Post Confirmation Alert:

- Inter Agency Alert
- Intra Agency Alert

MASS CASUALTY MANAGEMENT

ALERTING PROCESS

Confirmation report: Issued by first responder

- WHO
- WHERE
- WHAT
- HOW MANY VICTIMS
- POTENTIAL HAZARD
- POPULATION AT RISK
- APPROACH ROUTE

MASS CASUALTY MANAGEMENT

ALERTING PROCESS

- PRE-CONFIRMATION ALERT
- CONFIRMATION REPORT FROM THE FIELD
- POST CONFIRMATION ALERT

Medical Management of Disasters

Instructors Course

Field Organization

1. Define terms: Impact Zone, Restricted Area and Safe Zone
2. Demonstrate boundaries of Impact Zone consistent with type of disaster
3. Stress need for a map and stress major points in map making
4. Stress Rescuer safety
5. Demonstrate the pros and cons for the establishment of a collection point.
6. Demonstrate the thinking behind the siting of the CP and AMP
7. Demonstrate the need for an orderly traffic flow

MASS CASUALTY MANAGEMENT SYSTEM

FIELD ORGANIZATION

Mass Casualty Management Field Organization

Expect confusion caused by:

- Emergency Personnel
- Samaritans
- Relatives
- Spectators

ASS CASUALTY MANAGEMENT SYSTEM

FIELD RESTRICTED AREAS

- STRICTLY RESTRICTED = IMPACT ZONE (RESCUE OPERATION)
- RESTRICTED = SECONDARY ZONE (COMMAND, CARE, ...)
- RESERVED = TERTIARY ZONE (VIP, MEDIA, ...)

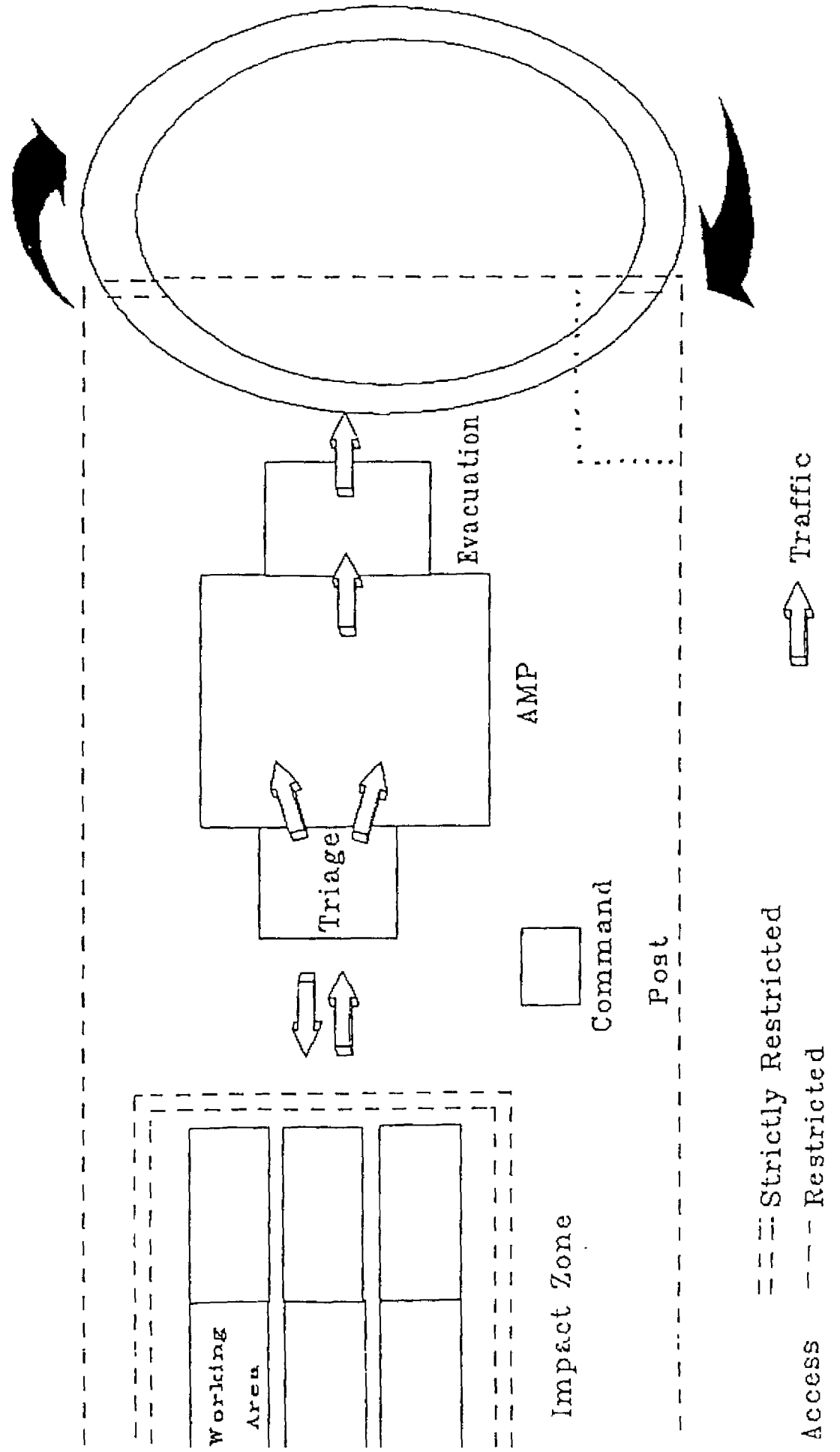
MASS CASUALTY MANAGEMENT SYSTEM

FIELD AREAS PRE-IDENTIFICATION

- IMPACT ZONE
- SECURITY/SAFETY ROADS
- ACCESS & EVACUATION ROADS
- COMMAND POST LOCATION
- ADVANCE MEDICAL POST LOCATION
- VIP & MEDIA LOCATION

FIELD MASS CASUALTY MANAGEMENT

GENERAL ORGANIZATION



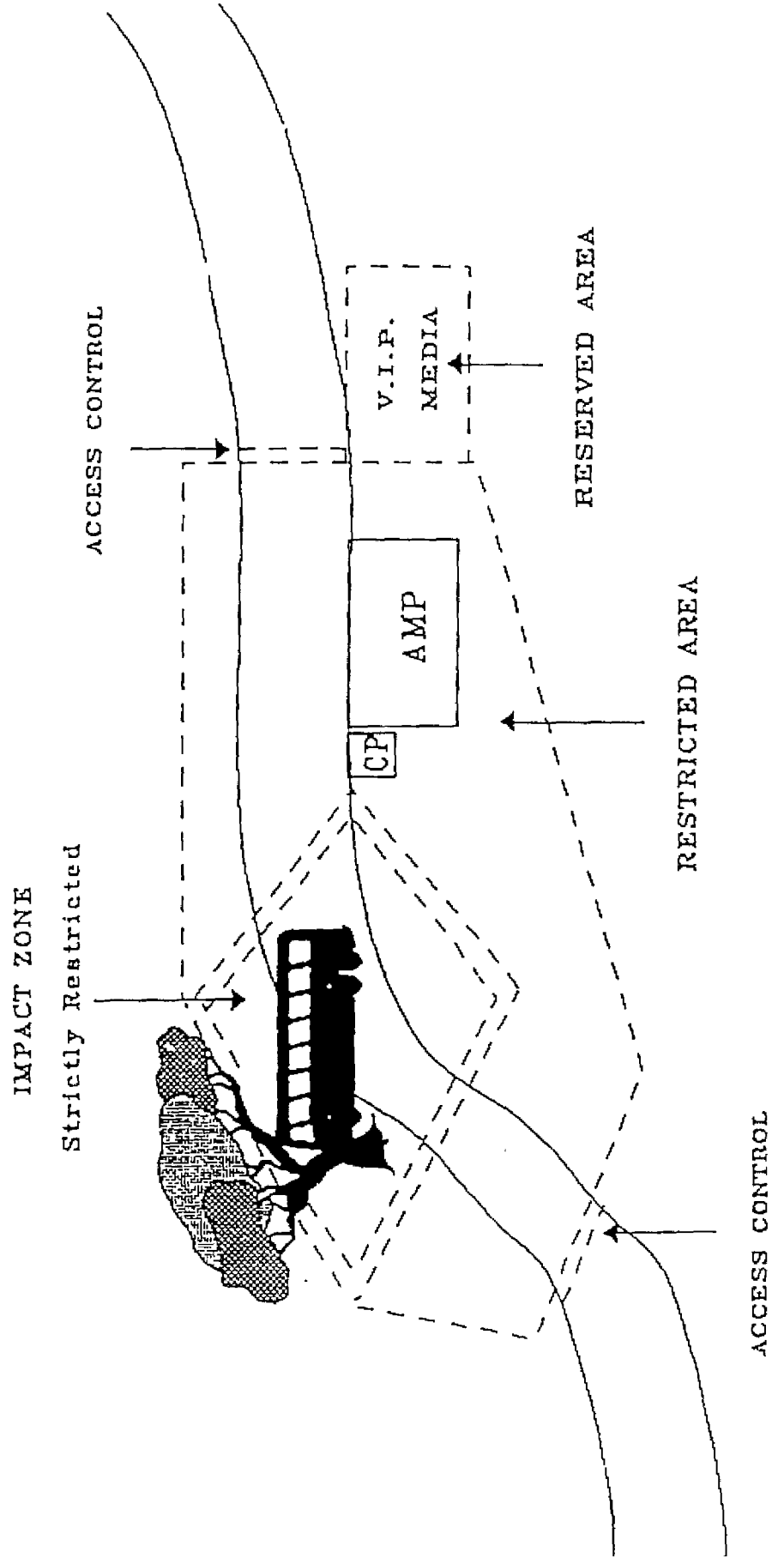
Mass Casualty Management

Field Organization

When Drawing Map Include:

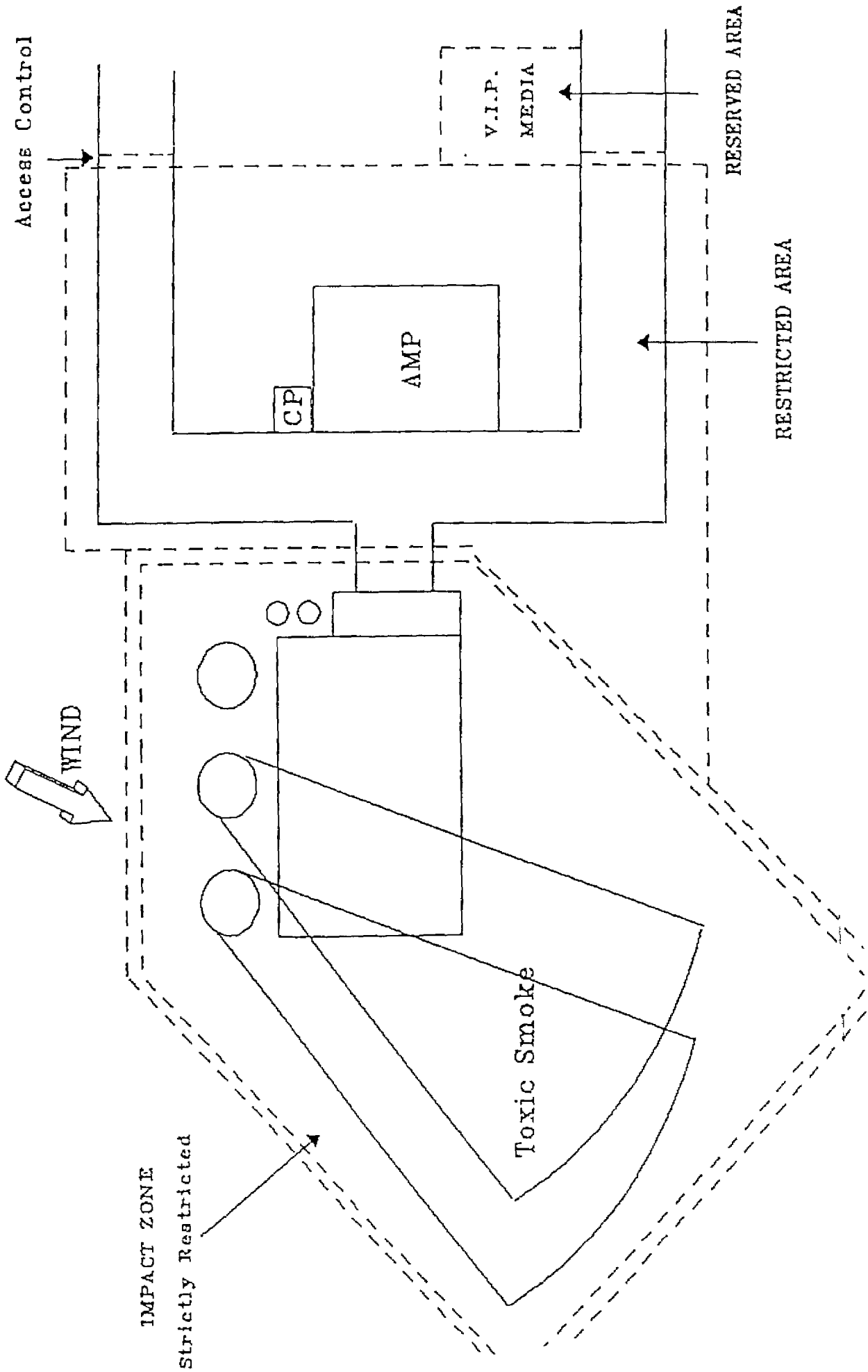
- **North /South**
- **Natural Obstacles - Trees, Rivers etc**
- **Buildings**
- **Roads**
- **Wind Direction**

Road Traffic Accident

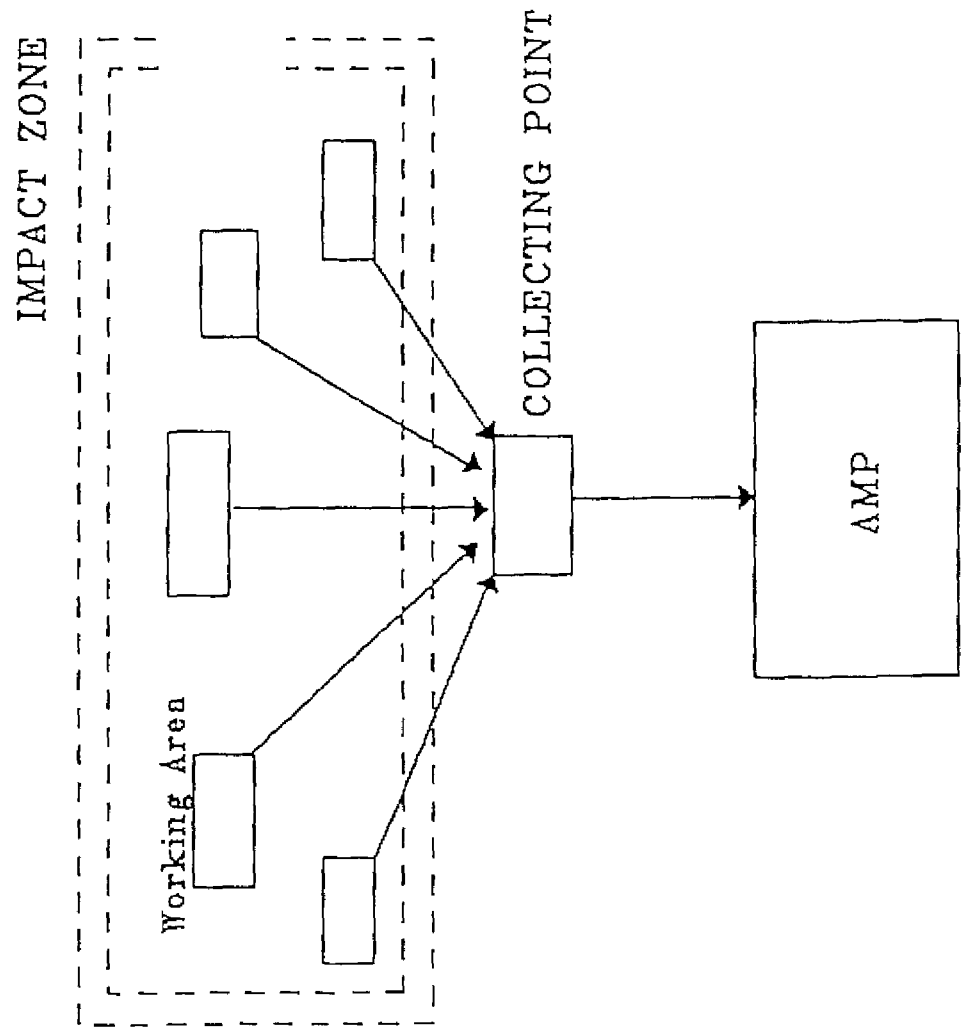


RESTRICTED AREAS

Chemical Fire



COLLECTING POINT



First Triage Criteria

- A = Airway
- B = Breathing
- C = Circulation
- E = Exceptions - Potential Problems
- F = Foreign Bodies

TRIAGE

- ON-GOING PROCESS ALL ALONG THE RESCUE CHAIN
- MUST BE EFFICIENT AND EFFECTIVE
- DETERMINES THE FUTURE OF THE VICTIMS
- REQUIRES HIGHLY SKILLED PERSONNEL

TRIAGE

PRINCIPLES

- CONTINUOUS CATEGORIZATION PROCESS
- PRIORITIZING FOR IMMEDIATE TREATMENT
- PRIORITIZING FOR EVACUATION
- DISPATCHING TO ADAPTED HEALTH FACILITIES
- REPEATED AT EACH STEP OF THE RESCUE CHAIN

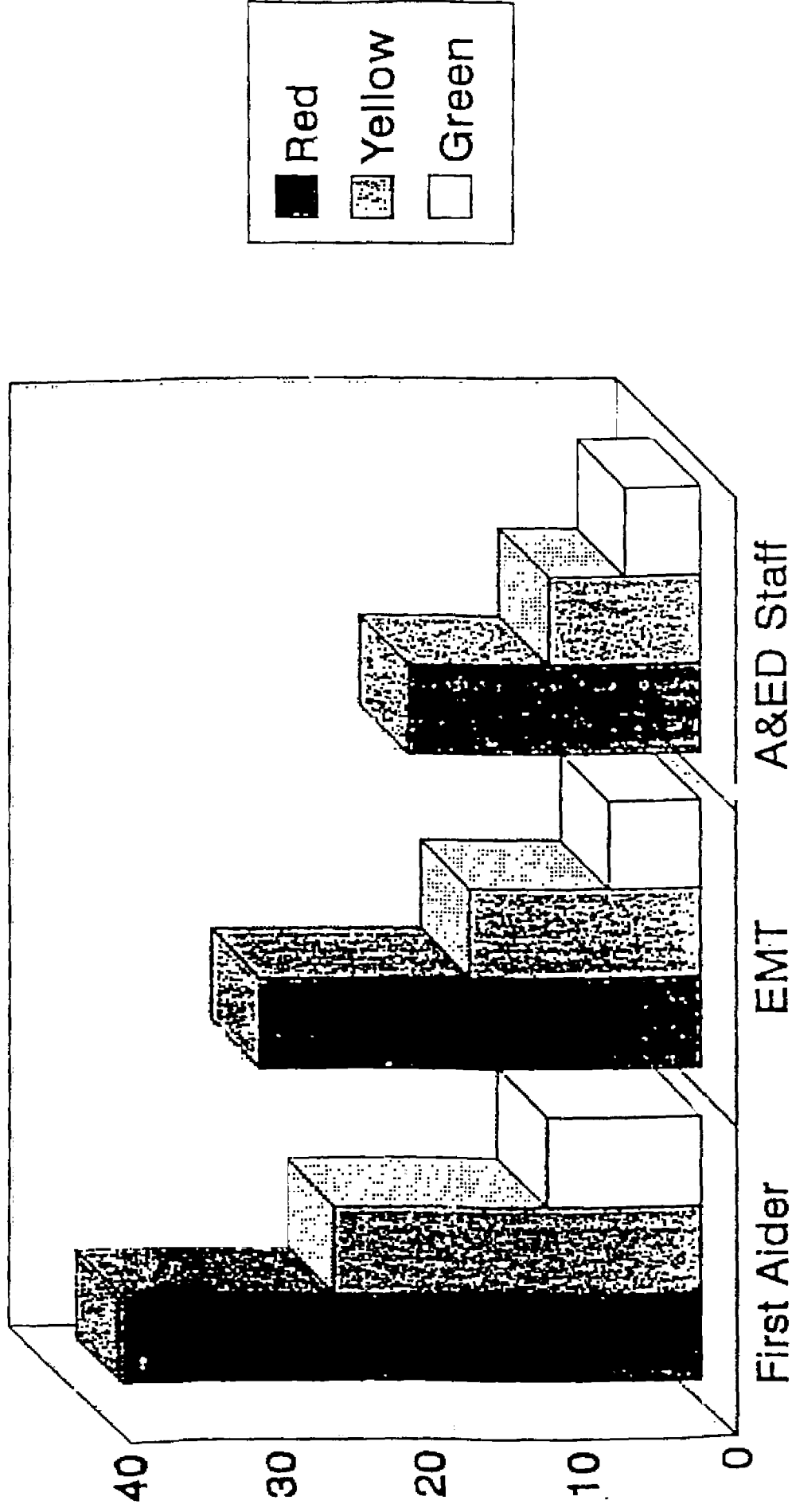
CRITERIONS OF TRIAGE

PROCESS OF CATEGORIZING VICTIMS BASED ON

- URGENCY
- LIKELIHOOD OF SURVIVAL
- CARE RESOURCES AVAILABLE

TRIAGE

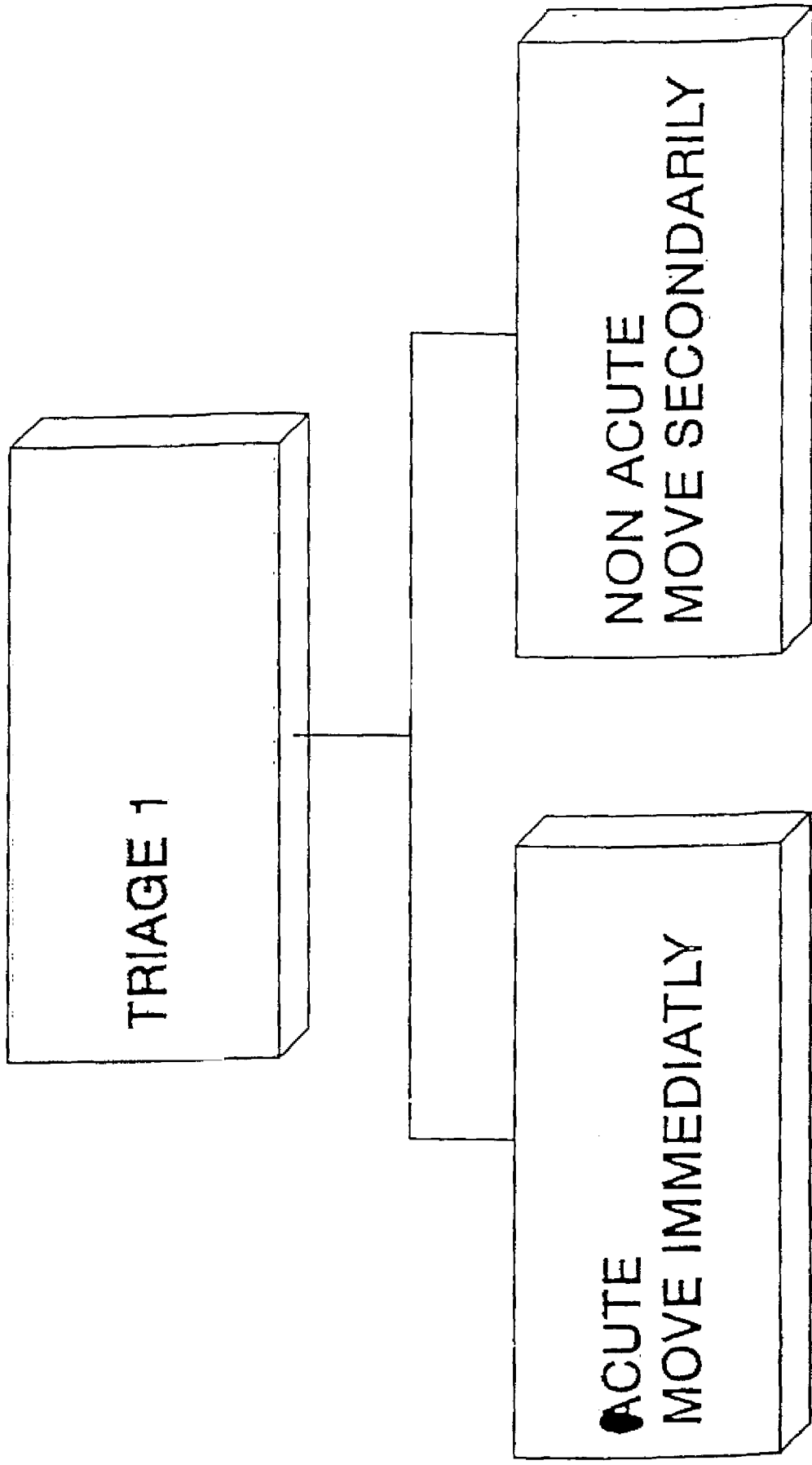
% of Incorrect Categorization



Average from 15 Simulation Exercises

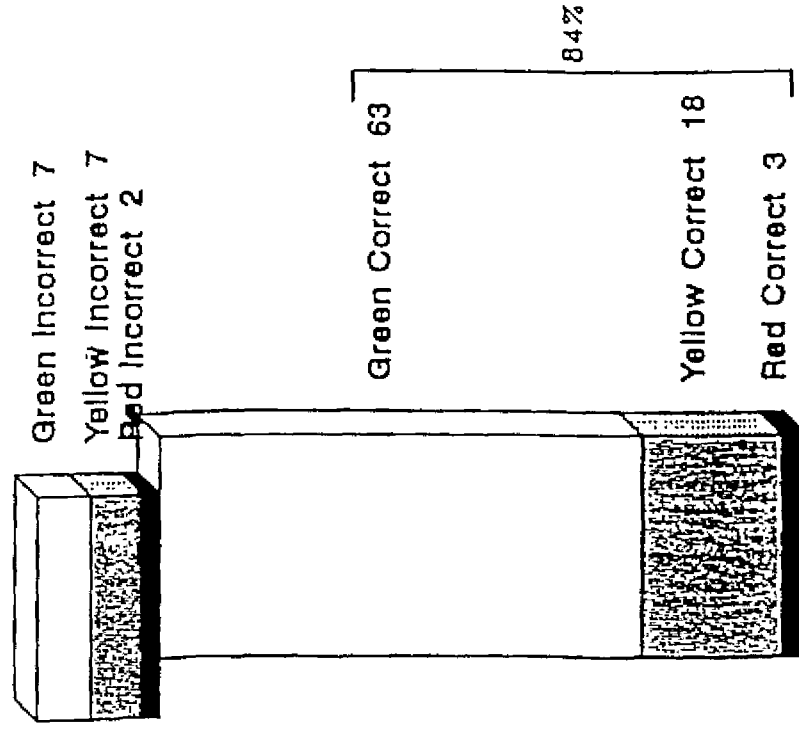
MASS CASUALTY MANAGEMENT SYSTEM

PRE HOSPITAL TRIAGE

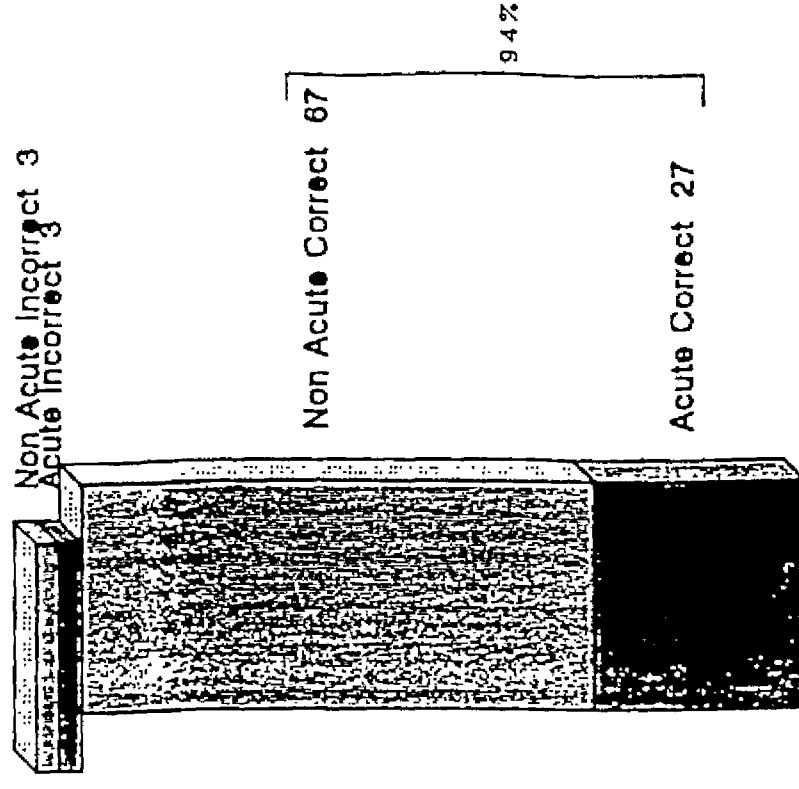


TRIAGE

First Aider Level



Color Code Triage

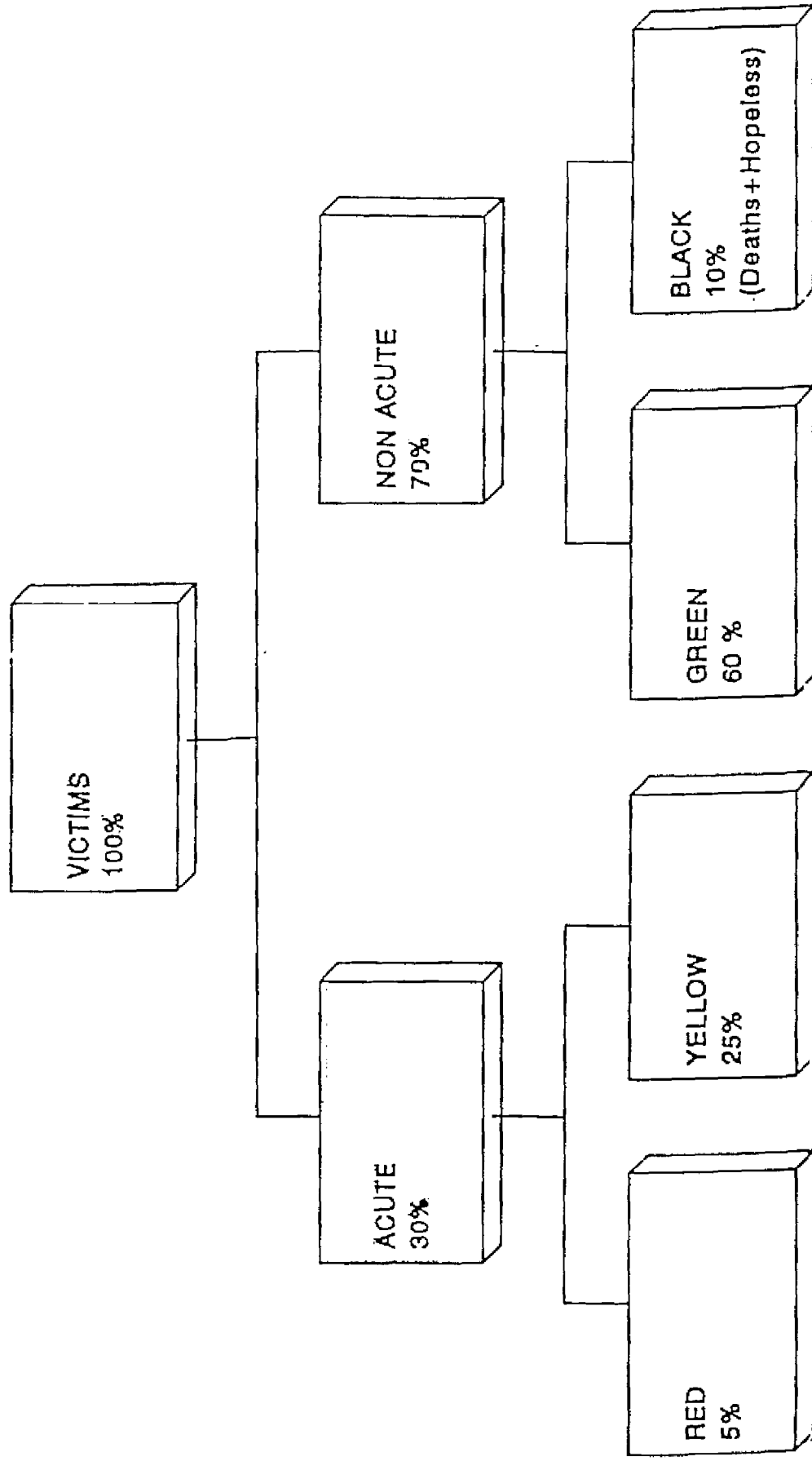


Acute/Non Acute Triage

Categorization of 100 Victims

MASS CASUALTY MANAGEMENT SYSTEM

PRE HOSPITAL TRIAGE



% = Mass Casualty Incidents World Average

Medical Management of Disasters

Instructors Course

Second Triage

1. Outline plans for the AMP
2. Introduce the AMP manager, 1st Triage officer and Card
3. Discuss staffing in the AMP
4. Discuss Tag, Treat and Transport

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MASS CASUALTY MANAGEMENT SYSTEM

TRIAGE AND STABILIZATION

PAN AMERICAN HEALTH ORGANIZATION

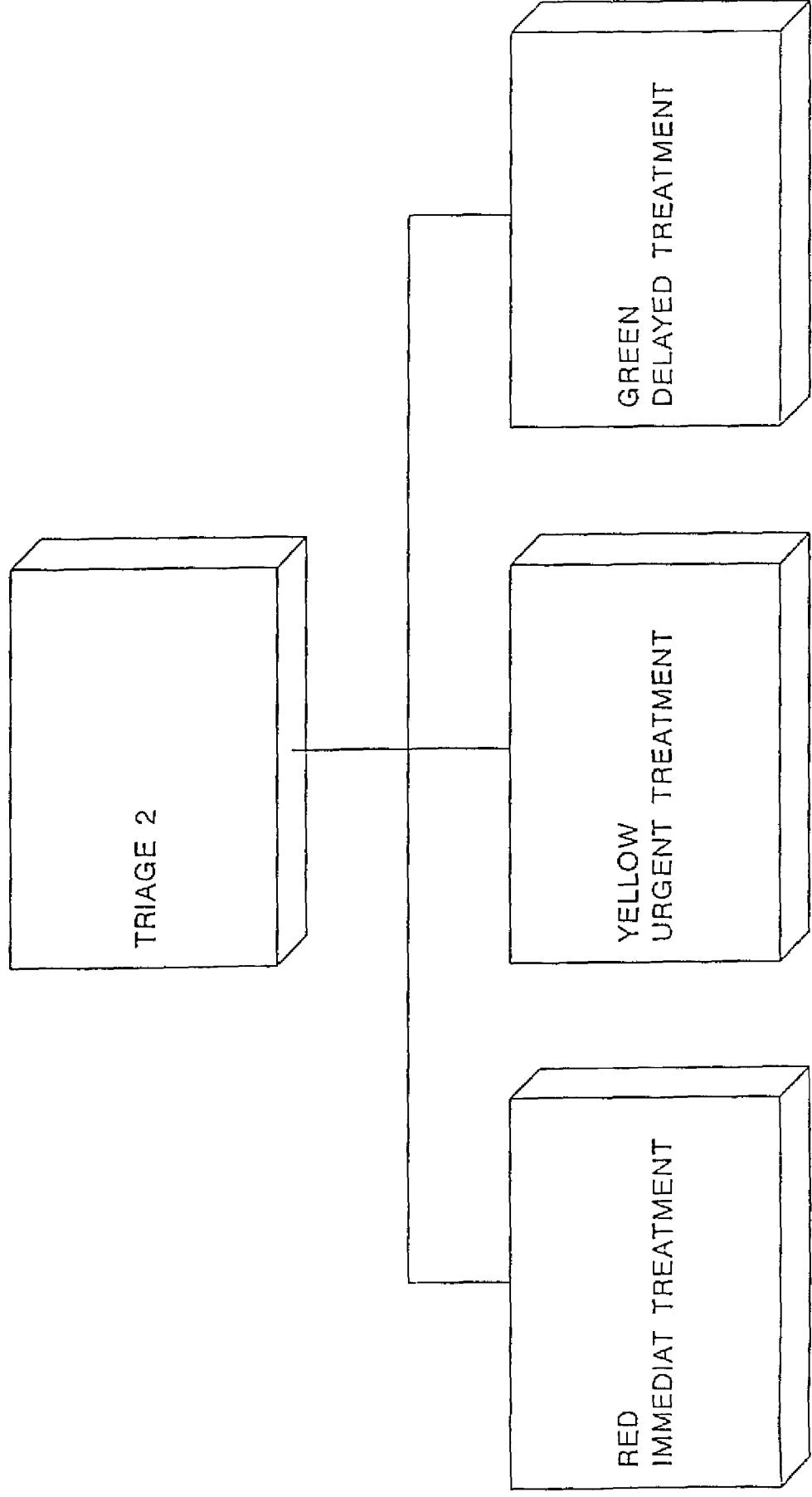
CRITERIONS OF TRIAGE

PROCESS OF CATEGORIZING VICTIMS BASED ON

- **URGENCY**
- **LIKELIHOOD OF SURVIVAL**
- **CARE RESOURCES AVAILABLE**

MASS CASUALTY MANAGEMENT SYSTEM

PRE HOSPITAL TRIAGE



TRIAGE

PRINCIPLES

- CONTINUOUS CATEGORIZATION PROCESS
- PRIORITIZING FOR IMMEDIATE TREATMENT
- PRIORITIZING FOR EVACUATION
- DISPATCHING TO ADAPTED HEALTH FACILITIES
- REPEATED AT EACH STEP OF THE RESCUE CHAIN

MEDICAL TRIAGE
FOCUSES ON

SYMPTOMS

NOT

ASPECT

The Advanced Medical Post Staff

- Manager
- Doctors
- Nurses
- Volunteers
- Clerks

Advanced Medical Post

Areas

- Red : Most Experience Doctor(s) & Nurses
- Yellow: Nurses with some Experience in
Trauma
- Green: Volunteers experienced in First Aid
Supervised by a nurse
- Black: Volunteer

Advanced Medical Post Information Chart

Pt Number	Ist Triage	Time In	Findings	2 nd Triage	3 rd Triage	Time Out	Destination

STABILIZATION

DEFINITION

MEDICAL ACTIONS IMPLEMENTED TO ENSURE THAT A VICTIM WILL :

- * TOLERATE TRANSPORT CONDITIONS

- * TOLERATE DELAYED HOSPITAL TREATMENT

STABILIZATION

PRINCIPLES

TO BE STABILIZED, A RED PATIENT NEEDS

- * BLOOD PRESSURE > 80
 - ==> INFUSION
 - ==> CONTROL OF BLEEDING
- * CORRECT BREATHING
 - ==> OXYGEN
 - ==> INTUBATION/CHEST DRAIN
 - ==> ARTIFICIAL
- * CONTROL OF PAIN
 - ==> PAIN KILLER
 - ==> CORRECT IMMOBILIZATION