

# EMERGENCY OPERATIONS PROCEDURE # \_\_\_\_\_

## MULTI-PATIENT INCIDENT PLAN

DATE: \_\_\_\_\_ 2006

SUBJECT: Multi-Patient Incident (MPI)/MCI Plan

PURPOSE: To provide guidelines for organizing and managing major medical incidents.

PROCEDURE:

**I. INTRODUCTION:** The NIIMS incident management system, and generally accepted principles of MPI management is used throughout this plan. The plan is a guideline, and actual command structure, tactics, and strategies will vary with incident scope and available resources. The processes used will be the same whether the incident is called an MPI or MCI. (Appendix #1)

1. This plan is intended for managing incidents involving as few as two or three patients or an incident involving a larger number of patients. The larger the incident, the larger the organization needed to manage it.
2. Many functions may be combined when resources are limited, including incident command, safety officer, Public Information Officer (PIO), triage, and staging.

**II. OFF SCENE FUNCTIONAL RESPONSIBILITIES** – Agency responsibilities for those not on the scene that play an integral part in the operation at an MCI.

**A. Medical Resource Hospital (MRH):** The nearest hospital will serve as the base station MRH for incidents occurring in the provider's area.

1. MRH is responsible for:
  - a. Implementing the hospital MPI plan.
  - b. Coordinating patient destinations.
  - c. Contacting area hospitals to monitor their initial and ongoing capacity to receive casualties.
  - d. Informing "Transport" of each hospital's capacity to accept casualties and directing patients to those facilities.
  - e. Notifying area hospitals of in-bound casualties, in lieu of an ambulance HEAR report.

- f. Maintaining a transport log for all patients.
- g. Providing on-line medical consultation for triage and treatment decisions.
- h. Coordinating for and/or providing medical materials and medical personnel resources needed at the scene.
- i. Coordinating for a HAM link between MRH and the field when other communication methods fail.

**B. Linn County Central Dispatch (Central):** Control of frequencies and air time is a key to effective radio communications. Central will coordinate and assign working frequencies.

1. Central is responsible for:
  - a. Assignment and control of radio frequencies.
    - (1) Linn County radio frequency F-1 will normally be used for emergency dispatch.
    - (2) Linn County radio frequencies F-2 and F-3 will normally be used for emergency incident tactical radio traffic.
    - (3) Linn County radio frequency F-4 will be used as a back up to other frequencies.
    - (4) Linn County radio frequency F-5 (HEAR) is reserved for traffic between Transport and MRH.
  - b. Maintaining a log of all radio communications and times.
2. Cellular telephone may be considered as an alternative communication link with MRH.
3. Radio communications must be kept to a minimum. In general, scene communications should be face-to-face whenever possible.
4. Only Command and units reporting arrivals and departures should communicate with Central.
5. Transport may consider using a vehicle's mobile radio or cellular phone to communicate with MRH when contact is unreliable with handheld radios.

**III. FUNCTIONS DEFINED** – This includes a list of the functions that need to be performed at the scene of an MCI.

- A. Strategic Plan:** It is usually not possible to save everyone in an MPI when resources are overwhelmed by the size of the incident. The objective in managing an MCI is to keep the greatest number of survivors from becoming fatalities. The Incident Commander functions in the strategic mode.

1. Strategies to accomplish this include:
  - a. Establish an effective command structure to make use of available resources. More lives can be saved by early and effective planning than by immediate, but uncoordinated action.
  - b. Secure the reasonable safety and welfare of potential survivors, emergency responders, and the public. Do not add to the problem.
  - c. Systematically locate and triage potential survivors and evacuate them to designated areas.
  - d. Establish field treatment unit(s). Coordinate the treatment and transportation of victims with the hospital (MRH). Transport patients to area hospitals only at the rate that they can accept casualties. Do not relocate the disaster to the hospital's back door.
  - e. Think ahead, order resources before they are needed. Anticipate that an MPI will require more resources than you have, and that they will be needed sooner than expected. There will be a need for units to cover for responding units.

**B. Triage:** Multi-patient incident (MPI) shall initiate primary triage and transition to secondary triage, as resources become available.

1. Primary Triage: Patients are identified by primary triage category with colored plastic surveyor's tape. Primary triage tape is located in triage kits located in each ambulance's MPI kit.
  - a. A strip of triage tape is tied to the left wrist, (first choice), the right wrist, (second choice), or either ankle (third choice) to designate the patient's triage category.
  - b. Triage tape color code:     **IMMEDIATE: RED**  
  **DELAYED: YELLOW**  
  **DEAD OR UNSALVAGEABLE: BLACK**
  - c. The START (**S**imple **T**riage **A**nd **R**apid **T**reatment) method is used for primary triage. (Appendix #2) The START method allows rescuers to triage large numbers of patients in a short period of time, and is applicable to multiple patient incidents.  
Patients are classified into **Immediate (Red)**, **Delayed (Yellow)** or **Dead/Unsalvageable (Black)** categories using the START method.
  - d. The Primary Triage function is responsible for:
    - (1). Initial (START) triage of each victim.
    - (2). Treatment limited to opening the airway and inserting an OPA if necessary,  
and  
controlling immediate life-threatening hemorrhage.
    - (3). Designating the primary triage category for each patient with appropriate  
colored triage tape.
    - (4). Determining an approximate number of total casualties.

2. Secondary Triage (Blue Flag): Patients who are evacuated from the injury zone are passed through a secondary triage point to validate their primary triage designation and to direct them to the appropriate medical treatment area. An adequate number of secondary triage points must be established to handle the flow of patients. Do not allow secondary triage to become a bottleneck.

a. Secondary Triage is responsible for:

- (1). Marking each secondary triage point with a blue unit flag.
- (2). Using the START triage system to re-assess each patient.
- (3). Assigning a secondary triage category and attaching a triage tag to each patient.
- (4). Directing each patient to an appropriate treatment area

b. A triage tag is used to indicate the patient's secondary triage category and to record medical information. (Appendix #3) The tag replaces the primary triage tape when the patient is evaluated at the secondary triage point marked by blue flags, and before the patient is sent to medical treatment or assembly area.

c. The bottom of the All Risk Triage Tag has perforated, colored tear-offs that correspond to the patient's triage category. They are perforated both horizontally and vertically for the purpose of accomplishing triage of patients and maintaining accountability. By perforating the category tear-offs up the center, this allows rescuers to remove one-half of the appropriate triage category for any given patient and retain it as a receipt of that patient. At the end of the initial triage component on an incident, those category receipts are given to the Medical Communications Coordinator for the purpose of accounting for all patients on scene. This will give the total patient count as well as the total count of each triage category for treatment and transport purposes. This method allows for a high degree of patient accountability and provides a rather rapid patient count for patient destination and transport priority.

d. Triage tag color code:

MINOR: **GREEN**  
DELAYED: **YELLOW**  
IMMEDIATE: **RED**  
DEAD: **BLACK**

**C. Unit Identification Flags**: Color-coded flags are used to mark the position of secondary triage point(s) and medical treatment areas for quick identification. Flags are erected by assembling shock-corded fiberglass poles and held upright by inserting into one or more stacked traffic cones.

1. Unit identification flag color code:  
SECONDARY TRIAGE POINT: **BLUE**  
IMMEDIATE TREATMENT AREA: **RED**  
DELAYED TREATMENT AREA: **YELLOW**  
MINOR TREATMENT AREA: **GREEN**

2. Flags, triage tags, triage kits, and other MPI materials should be carried where they will be accessible when needed on an MPI.

**IV. COMMAND, DIVISIONS, AND GROUPS IN AN MPI** – An MCI will function under the NIMS system. Positions in the Sections, Divisions and Groups are filled based on the size of the incident and the availability of people.

**A. Incident Commander (Command):** Command is responsible for the overall strategic control and management of the scene, either solely or within a unified command structure.

1. Incident command should normally be assumed by the fire agency having jurisdiction at the incident. Secondary triage, medical treatment and transport are the responsibility of the ASA assigned ambulance provider of the area.
2. The first qualified emergency responder to arrive on the scene must initially assume command. Command may later be transferred to another qualified person.
3. A Unified Command structure should be established early, to bring together command level personnel from the various agencies necessary to conduct the operation.
4. Command is responsible for:
  - a. Implementing an incident command structure.
  - b. Setting appropriate strategic priorities and objectives (see – III. Functions Defined; A. Strategic Plan).
  - c. Developing an effective plan of action.
  - d. Procuring material and personnel resources.
  - e. Scene stabilization and hazard mitigation.
  - f. Search, rescue, and extrication operations.
  - g. Triage, medical treatment, and transportation. (Appendix #4)
  - h. Personnel safety and welfare. Including direct supervision of the Safety Officer.
  - i. Timely and orderly release of information to the media. Including direct supervision of the Public Information Officer (PIO).
  - j. Coordination with other involved parties not represented at the command post. (Liason Officer)

**B. Operations Section (Operations):** Operations is responsible for all activities that take

place at the incident site. Operations reports to Command and implements the tactical portion of the incident action plan.

1. Operations is responsible for:
  - a. Supervision of branch officers and their functions operating at the scene. (Medical, Fire, etc)
  - b. Coordination of level 1 and level 2 staging.
  - c. Overall management of all activities at the scene of the incident. Operations may physically be located at the scene or at a command post.
  - d. To assist command in the formulation of the incident action plan and to implement the tactical portion of the plan.
  - e. To keep command informed of the progress in operations toward the tactical objective and to advise command of the need for more or specialized resources.

**C. Logistics, Finance, and Planning Sections** – are filled in large incidents and report to command.

**D. Medical Branch (Medical)**: The Medical Branch Leader may function within a unified command structure from a central command post, but is usually most effective directing medical operations from a field position. Medical Branch reports to Operations.

1. Medical is responsible for:
  - a. Directing primary triage (Extrication)
  - b. Establishing effective secondary triage point(s) (Triage)
  - c. Establishing a medical treatment area for Immediate and Delayed patients (Treatment)
  - d. Treatment of all patients in the field. (through Treatment)
  - e. Establishing a supervised assembly area for non-injured (minor) persons. (Assembly)
  - f. Establishing a supervised morgue.
  - g. Coordinating with the Transport Group Leader to transport the most serious injuries in priority order (Transport).
  - h. Establishing a supply and equipment cache site. (Treatment/Logistics)
  - i. Coordinating with Operations and MRH for supplies, personnel, and equipment.

- j. Completion of Major Medical Worksheet at conclusion of incident. (Appendix #7)
- E. Extrication Group (Extrication):** The Extrication Group is responsible for on site operations and will report to Medical Branch. The need for extrication will vary widely depending on the nature of the MPI. Rescue operations will usually be performed by first arriving fire personnel, but should not begin until major hazards have been reasonably controlled.
1. Extrication is responsible for:
    - a. Locating potential survivors.
    - b. Mitigating imminent hazards by controlling the hazard or removing the victim(s) from the hazard(s).
    - c. Removing ambulatory survivors to a safe assembly area. When possible, ambulatory victims should be walked out of the injury zone to a supervised assembly area for further assessment, treatment, and transport from the scene.
    - d. Reporting to Command an initial count (estimate) of potential survivors.
    - e. Conducting primary triage.
    - f. Evacuating non-ambulatory survivors to a secondary triage point and then move them on to an appropriate medical treatment area.
    - g. Patients should be removed from the injury site based on their location. They are removed as the rescuer comes to them. You do not step over a patient to get to another one unless they are tagged **BLACK**. **Black** tagged patients are left where they are found.
- F. Triage Group (Triage):** The Triage Group reports to Medical and is responsible for the orderly triage of all patients involved in the incident. Primary triage is handled by the Extrication Group. However if this group is not set up then all triage is done by the triage group.

The Triage Group is responsible for:

1. Primary triage - (see – III. Functions Defined; B. Triage)
  2. Secondary triage - (see – III. Functions Defined; B. Triage)
- G. Treatment Group (Treatment):** Treatment's primary objective depends on the number of patients. The usual objective is to provide treatment for life-threatening conditions and to transport patients to local hospitals in priority order as quickly as possible. Treatment reports to Medical and must coordinate with transport to get patients to hospitals in a timely manner.
- The treatment areas are marked with red (Immediate) and yellow (Delayed) unit flags to designate respective treatment areas.

Treatment is responsible for:

1. Organizing Immediate (Red) and Delayed (Yellow) treatment areas.
2. Medical treatment of all patients.
3. Periodic reevaluation of patients and re-triaging as necessary.
4. Prioritization of patients for transport.
5. Coordination with Transport to move patients to the ambulance loading area.
6. Recording pertinent information on the triage tag.
7. Establishing a medical equipment and supply cache.
8. Establishing an assembly area for uninjured or minor injured persons.
9. Establishing a morgue area.

**H. Assembly Area (Assembly):** An assembly area must be established to accommodate persons who are uninjured or have apparent minor injuries.

Assembly is responsible for:

1. Establishing an area that is sheltered and away from the injury zone and medical treatment areas. Consider city or school passenger busses for both shelter and transportation uses.
2. Primary and secondary triage of the victims that were able to walk away from the incident.
3. Periodic monitoring of all persons to detect worsening of conditions.
4. Preventing persons from leaving the assembly area without authorization.
5. Maintaining an assembly log (transport worksheet - Appendix #5) to record the name, age, triage tag number, and disposition of all persons triaged to the assembly area.

**I. Morgue:** Incident circumstances, safety, available resources, the weather, and other factors will dictate how bodies are handled at the scene. In general, the following guidelines should apply:

1. Bodies should not be moved or disturbed until released by the medical examiner unless they must be moved to gain access to living victims. Try to record the original location and position of bodies when they must be moved. Bodies should be tagged with a triage tag for tracking purposes when resources allow.

2. When possible, allow the medical examiner and/or police to handle the removal of bodies at the scene. Concentrate fire and EMS resources on hazards and the living.
3. Establish a morgue area convenient to, but separate from the medical treatment area. All morgue areas must be supervised for security purposes. A log with triage tag numbers must be kept for all bodies assigned to the morgue.
4. Consider a refrigerated truck for body storage. This slows decomposition problems, gets bodies out of public view, and provides security.
5. Contact local mortuaries for assistance in body handling and management. Many morticians have training in disaster management and can be of great assistance.

**J. Transport Group (Transport):** Transport must coordinate between MRH, Medical, Treatment and Transport activities, and thereby has great control over the smooth and orderly transportation of patients from the scene and the ultimate success of the operation.

Transport is responsible for:

1. Directing inbound ambulances to the medical supply cache for off-loading of supplies. Ambulances should drop supplies and equipment and then form-up in an ambulance staging area until they are needed in the patient loading area.
2. Establishing an ambulance staging area with direct access to the patient loading area. Level-2 staging may be employed for other equipment and vehicles not needed directly at the scene. (through Staging)
3. Establishing an ambulance loading area (on-deck area) adjacent to the medical treatment area(s).
4. Coordinating with Medical and Treatment to designate patients for transportation to medical facilities in priority order.
5. Coordinating with MRH to determine patient destinations according to the ability of area hospitals to receive casualties.
6. Coordinating with Staging to bring ambulances into loading position as needed.
7. Coordinating with transport vehicles to give directions including destination, priority, supply pick-up, and return instructions.
8. Maintaining a transport log. (Appendix #5)
9. Notifying MRH of transport vehicle departures, destination, vehicle number, ETA, and patient loads. (MRH will then notify the receiving facility of inbound patients).

**NOTE:** Consider assigning a Transport Aide to assist Transport with coordination and record keeping.

**K. Staging:** Command must assign a staging officer to organize and direct ambulances and

support apparatus. Staging reports to Operations.

1. An ambulance staging area should be established near the patient loading area. Other vehicles can then be kept away from patient areas, and ambulances can be moved up into the loading area only as needed.
2. A Level-2 staging area should be established for all fire apparatus, support vehicles, and personnel not needed directly at the scene.

**V. OPERATIONAL CONSIDERATIONS**

- A. Mutual Aid:** Mutual aid should be requested by Command through Central. Requests for mutual aid should be in terms of how many ambulances, transport capable rescues, support apparatus, or personnel are needed.

Central will request mutual aid resources from surrounding agencies closest to the incident first. Mutual aid resources from adjoining counties will be requested by Central through the appropriate 9-1-1 center for that area.

1. Ambulances - The following local agencies may provide one or more staffed and equipped ambulances:

<b>Benton County</b>
Corvallis Fire Dept.

<b>Linn County</b>
Albany Fire Department
Lebanon Fire District
Lyons Fire Dept.
Sweet Home Fire District

<b>Marion County</b>
Jefferson Fire District
Keizer Fire Dept.
Marion County Fire District
Salem Fire Dept.
Silverton Ambulance
Stayton Hospital Ambulance
Turner Fire Department
Woodburn Ambulance

<b>Lane County</b>
Eugene Fire Dept.
Lane Rural Fire
South Lane Fire
Springfield Fire

<b>Private Ambulances</b>
Rural Metro
Metro West
AMR

<b>Polk County</b>
Dallas Fire Dept
Polk County Fire

<b>Deschutes County</b>
Black Butte/Sisters Fire

2. Command and central need to keep an awareness of the districts that are left without unit available to respond and move-up units to cover.
  - a
3. Transport-capable Rescues - The following local agencies may provide one or more

staffed and equipped transport capable rescues:

<b>Linn County</b>
Brownsville Fire
Halsey/Shedd Fire
Lebanon Fire District
Scio/Crabtree Fire District

<b>Benton County</b>
Adair Fire

4. Helicopter rescue and evacuation services:

Life Flight, Portland	1-800-452-7434
Air Life, Bend	1-800-621-5433
REACH Air Medical, Corvallis	1-800-338-4045
US Coast Guard, N. Bend	1-541-756-4141

**B. Helicopter Operations:** Medical helicopters are very useful in certain MPI circumstances, but only if properly coordinated. If not, helicopters can be dangerous and disruptive at an MPI scene.

1. Helicopters should be used to transport **Immediate** (red) patients to distant hospitals to allow ground ambulances to concentrate on transporting patients to nearer hospitals.
2. Try to establish a helicopter landing zone (LZ) that is lateral to patient treatment areas in relation to the prevailing winds. Do not locate the LZ directly upwind or downwind from patient treatment areas to avoid rotor wash from helicopters landing or taking off. It may be necessary to shuttle patients to the LZ with ambulances.
3. Someone must be assigned as LZ coordinator to supervise helicopter operations and control the LZ. (Appendix # 6 or # 8)

**C. Medical Supply:** The need for medical supplies and equipment will vary depending on the incident and the ability of hospitals to receive casualties.

1. A medical supply and equipment cache should be established near the medical treatment area in most large or extended incidents. A person should be assigned to supervise the area, and organize and dispense supplies.
2. Supplies and equipment may be stripped from ambulances initially responding to the scene. Ambulances should report to the supply cache, off-load supplies, and then report to ambulance staging for assignment.
3. The MCI trailer is an excellent base of operations for medical supply and serves as a sheltered and secure storage area.
4. MRH will provide supplies as needed, and they can be ferried by ambulances returning to the scene.

**D. Multiple Site Locations:** Coordination is more complicated when physical or

geographical features divide the MPI/MCI scene. Examples may be passenger train or freeway accidents or any incident where casualties are not concentrated in a single injury zone.

1. It is not practical to transport casualties any distance from the injury zone to a medical treatment area. Therefore, it may be necessary to establish two or more treatment groups, each supported with its own secondary triage point, Medical and Transport Officer. Each group may operate independently and receive support from command staff, staging, and medical supply.
2. A Chief Transport Officer must be assigned to communicate with MRH to coordinate patient destinations with each treatment group.
3. Each Treatment Group must be given an alpha/numeric designator to identify the unit.

**E. Scene Security:** Scene security is often difficult to establish and even harder to maintain. Generally, the concern is in keeping unauthorized persons out of the controlled perimeter and with keeping patients in a controlled environment until they can be triaged and accounted for.

1. An effort must be made to prevent potential patients from leaving the scene until accounted for. Walk-aways may contribute to hospital overload, and may complicate search and rescue operations because a search must be conducted for victims who are unaccounted for.
2. Persons who are triaged out of the medical treatment system must be assembled and accounted for. Assembly is responsible for maintaining a log of all persons entering the assembly area, including name, age, triage tag number, and destination if transported off-site.
3. The emergency scene perimeter should be roped off with scene tape. If this is impractical, certain areas like medical treatment units and morgue areas must be cordoned off.
4. Police and MPI/MCI personnel may be used to enforce security. Vests will assist with quick identification of authorized personnel within the scene perimeter.
5. When practical the standard personnel accountability system should be used, especially for fire suppression and rescue personnel.

**F. Public Information:** Public information can be troublesome in an MCI because of the intense interest and media pressure, and because the confidentiality of medical information must be maintained.

1. All inquiries about the incident must be referred to the PIO. Do not answer questions, consent to interviews, or allow photographs unless the person is accompanied by a PIO/Command staff representative. Command staff will determine what information can be released, and when.

2. Accuracy is extremely important, and information will not be released unless verified. The privacy of victims and families will be protected whenever possible. Medical information regarding injury, illness, treatment, and prognosis is confidential and cannot be released without the patient's written permission.
3. Establish a media pool when possible. The pool should be assembled in a secure location, accessible to the incident, but away from sensitive areas (treatment areas, morgue, family assembly areas).
4. Media representatives can tour the scene only under direct supervision of PIO/Command staff, and cannot be allowed inside the safety perimeter until hazards have been reasonably cleared. Give local media preference whenever possible.

**G. Rehabilitation (Rehab):** The Rehab Unit should be implemented in extreme climatic conditions, or for extended MPI/MCI operations. Personnel may need relief from both physical and mental stresses as well as a sheltered resting place, fluids, and suitable nourishment.

1. A Rehab Unit should be brought to the scene, staffed, and implemented in accordance with agency procedures.

## **VI. After Incident Actions**

**A. Documentation:** It is important for medical, legal, and operational reasons to document pertinent aspects of an MPI/MCI. Command staff and each Branch/Group Leader must keep a written log of pertinent events.

1. The Treatment Group Leader is responsible for entering pertinent medical and injury information on the triage tag for each patient.
2. The Transport Officer is responsible for completing a Transport Worksheet log for each patient transported. (Appendix #5)
3. The Chief Transport Officer in a multi-site operation will maintain a master Transport Worksheet log for all patients. The Transport Officer for each multi-site Treatment Group will maintain a Transport Worksheet log for that Treatment Group.

**B. Critical Incident Stress Debriefing (CISD):** Local and regional CISD personnel should be contacted as early as operational imperatives allow. It is important that CISD be addressed in any significant incident, the sooner the better. Consider integrating CISD functions with Rehab in extended field operations.

**C. Post Incident Analysis:** Post Incident Analysis is a process of bringing together all entities who responded to the emergency for the purpose of reviewing the operation and resolving problems.

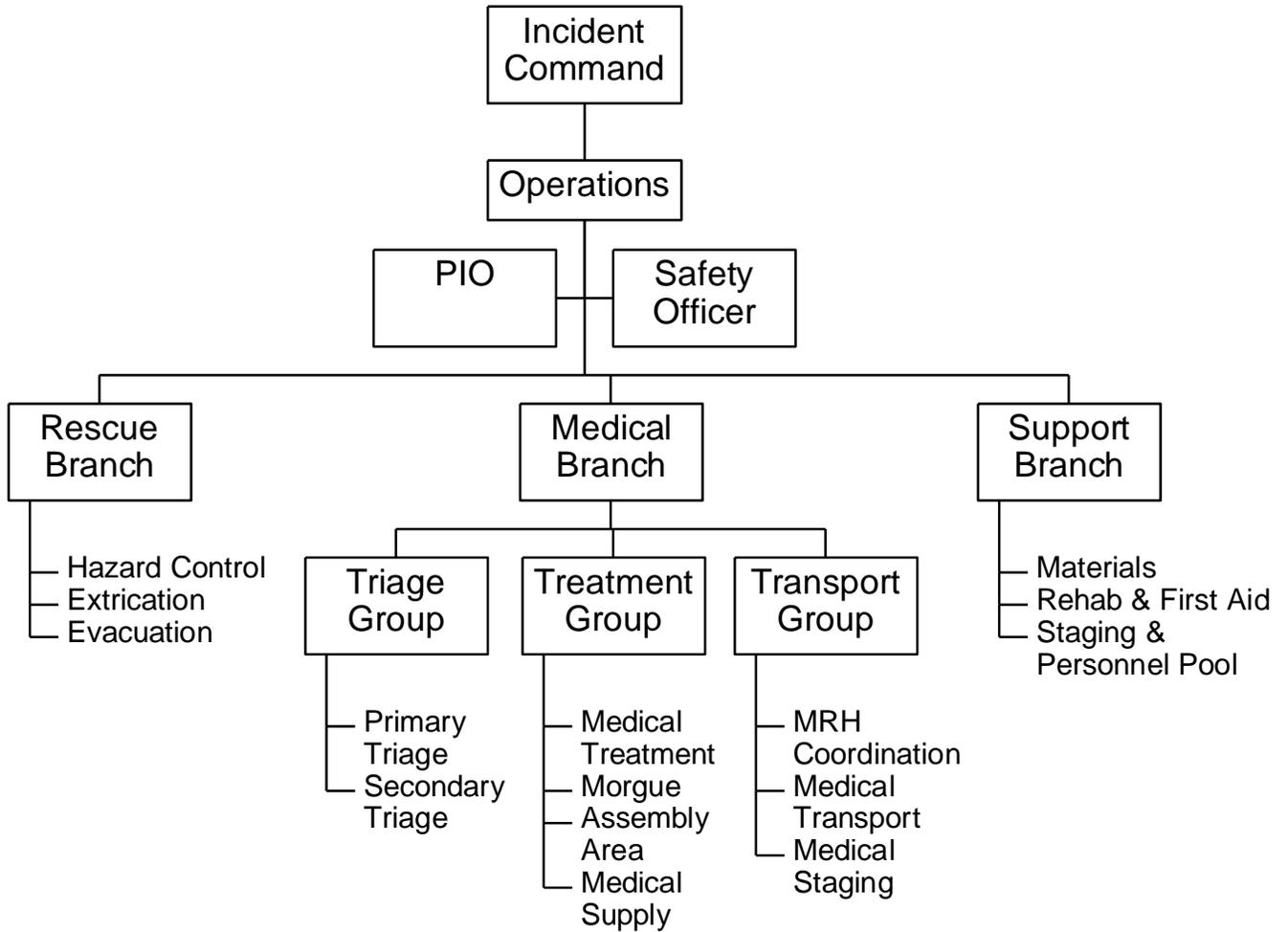
1. The focus of the debriefing should be on clarifying roles, actions, and responsibilities, and identifying problems and seeking solutions.

2. A written record (minutes) of the debriefing should be recorded and distributed to all participants. The minutes become part of the official record of the incident.
3. The debriefing is not a public meeting and should be conducted without the presence of the media, victims, or their families. The final approved minutes of the debriefing are public record and may be released to the media.
4. The debriefing should be conducted as soon after the conclusion of the incident as practical. Participants should be allowed time to recover from physical and mental fatigue and to organize and write their own internal agency report on the incident.

**VII. APPENDIX LIST:**

1. MPI/MCI Command Check Sheet
2. START Triage Algorithm
3. Triage Tag
4. MCI Scene Diagram
5. Transport Work Sheet
6. Helicopter Checklist
7. Major Medical Worksheet
8. Helicopter Use Policy
9. MCI Alarms for Dispatch

### Command Check Sheet



## START Triage Algorithm

START = (SIMPLE TRIAGE AND RAPID TREATMENT)  
ALL VICTIMS ABLE TO WALK (MINOR) ARE SENT TO A SPECIFIED AREA  
(They are evaluated and monitored there)

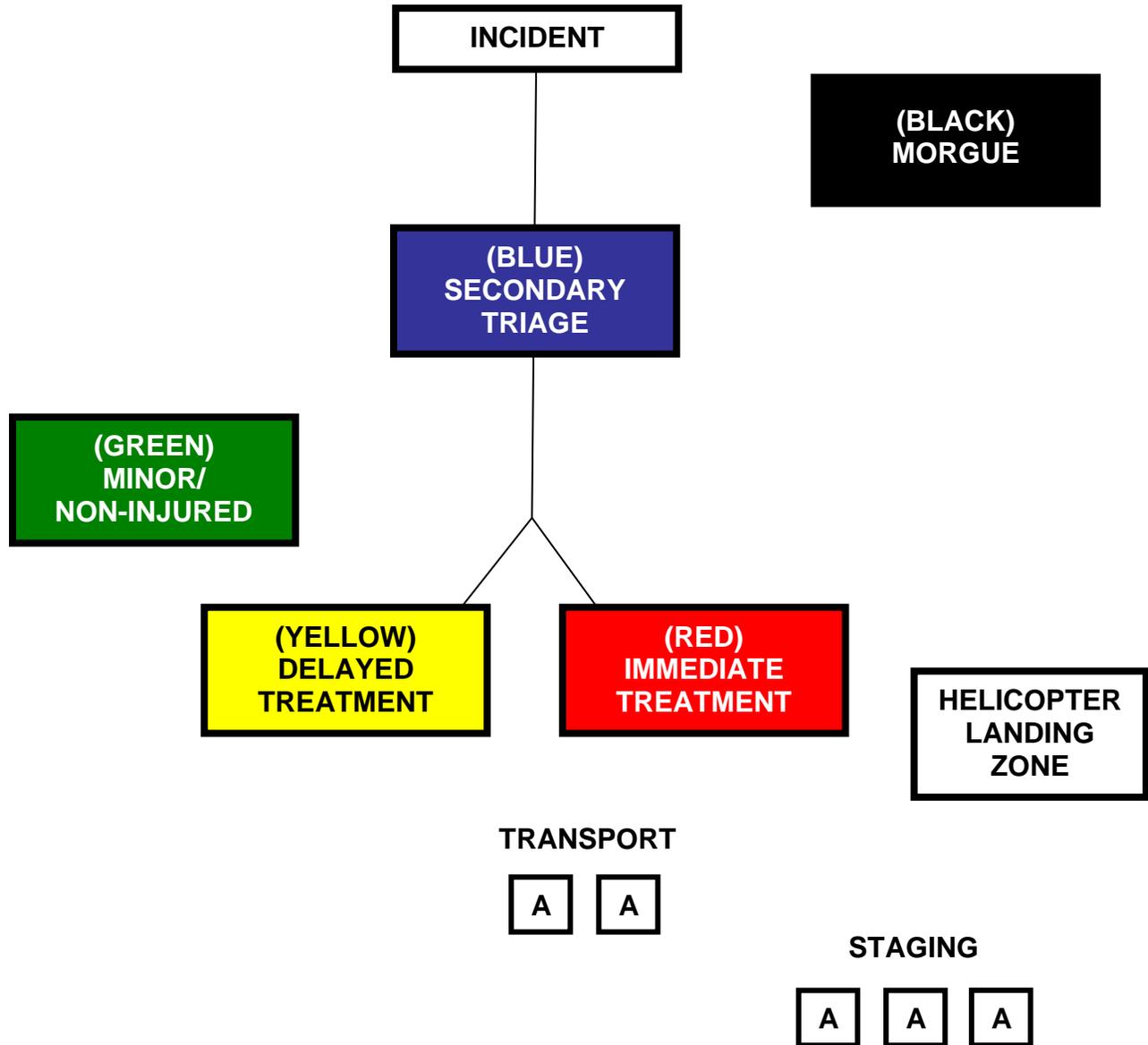
Move the Walking Wounded(*)	▶	<b>MINOR</b>
No Respirations After Head Tilt	▶	<b>MORGUE</b>
<input type="checkbox"/> Respirations - Over 30	▶	<b>IMMEDIATE</b>
<input type="checkbox"/> Perfusion - Capillary Refill Over 2 Seconds	▶	<b>IMMEDIATE</b>
<input type="checkbox"/> Mental Status - Unable to Follow Simple Commands	▶	<b>IMMEDIATE</b>
Otherwise	▶	<b>DELAYED</b>

(\*) Evaluate walking wounded to make sure they do not fit in other triage categories.





MCI Scene Diagram





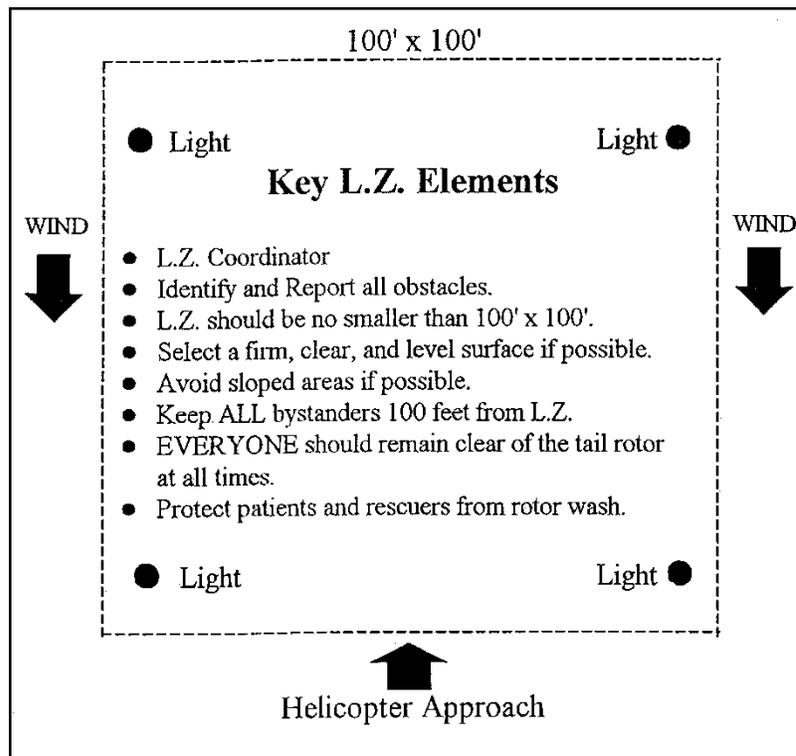
## Helicopter Checklist

# LANDING ZONE PREPARATION

The flight crew will request landing zone information from the LZ Coordinator when they are approximately 5 minutes from the LZ. The flight crew requests no radio traffic to the helicopter during short final (30 seconds to touchdown) unless a hazard to the helicopter exists, at which time the LZ Coordinator should immediately advise the flight crew to “**ABORT LANDING.**” Radio traffic is restricted during the short final period so the flight crew can communicate any scene hazards to the pilot and assist him in clearing the tail rotor.

The flight crew will request the following LZ information from the LZ Coordinator.

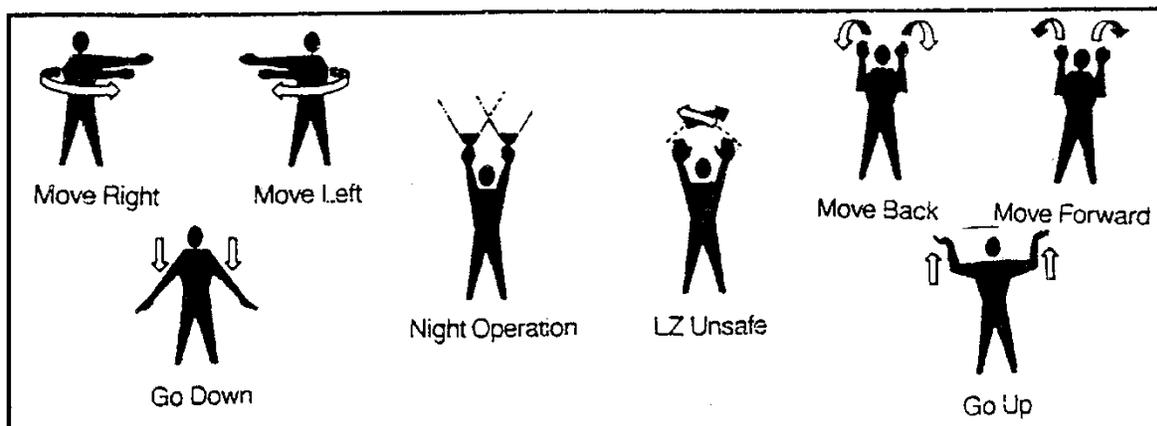
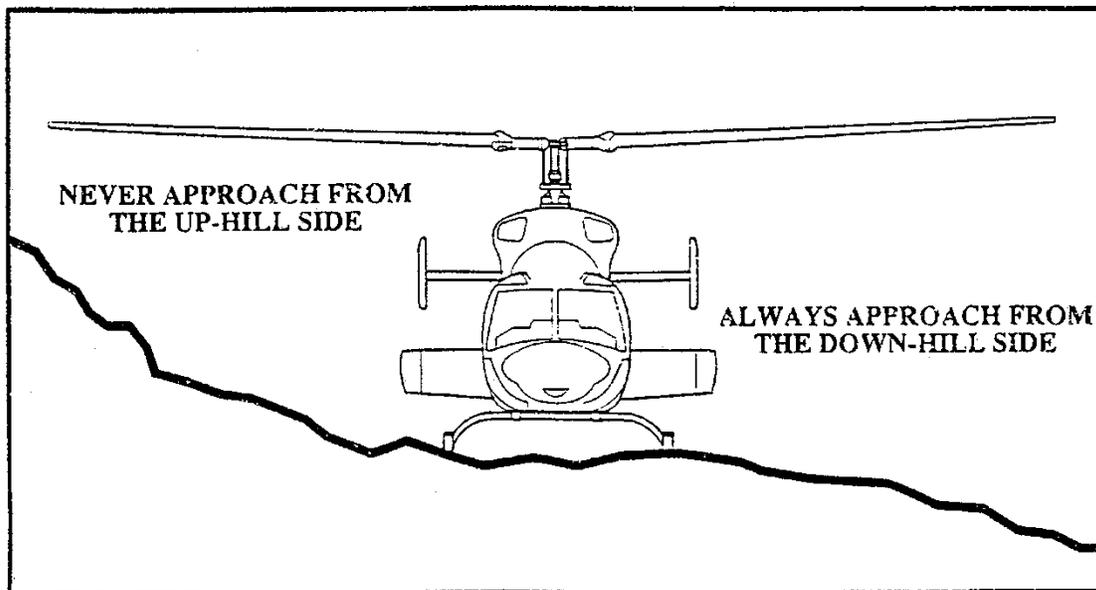
- Location
- Overhead obstructions
- Wind speed and direction
- LZ markings, i.e. flares, cones
- Location of LZ Coordinator



# APPROACHING THE AIRCRAFT

Once the helicopter has landed and the LZ Coordinator has secured the tail rotor, no other personnel should approach the helicopter unless directed by the flight crew. Do not bring the patient to the helicopter, the Flight Nurse will come to you. No vehicles, including emergency vehicles, should be within 75 feet of the aircraft.

If a flight crew member directs you to approach the aircraft, maintain eye contact with that crew member at all times. Approach in a crouched position. Hands or equipment should not be raised above your head. Baseball caps or other loose articles should not be worn around the aircraft. If the aircraft should have to land on a slope, always approach and depart from the down-slope side only. Helmets should be secured to your head using chin straps.





Appendix # 8

**EMERGENCY OPERATING PROCEDURE # \_\_\_\_\_**

**AIR AMBULANCE UTILIZATION**

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DATE: August 2006

SUBJECT: Air Ambulance Utilization

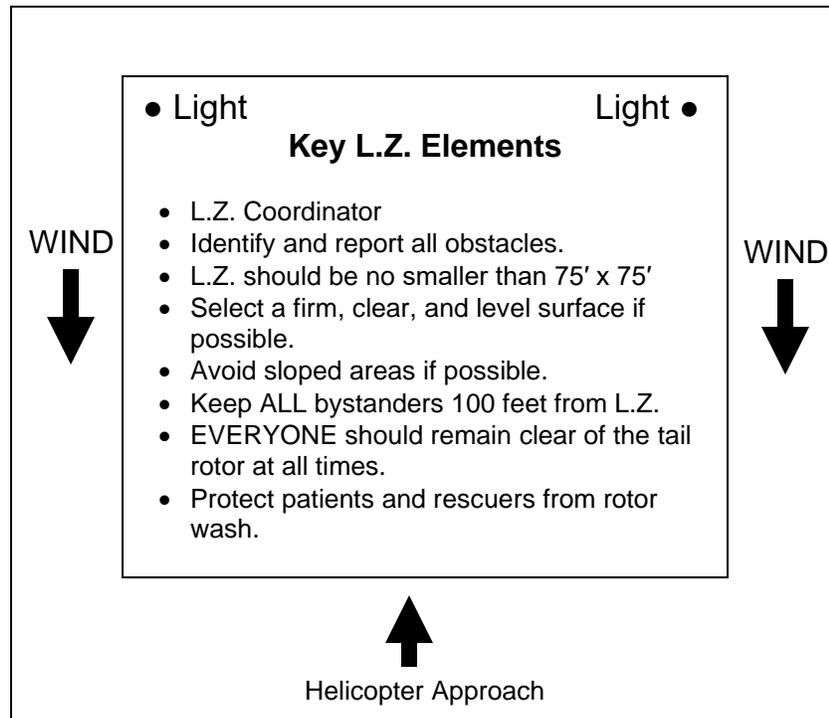
PURPOSE: Decision to utilize an air ambulance (helicopter) should be based on the severity of the patient's injury and the amount of time that may be saved transporting to an appropriate facility. Patient transport should not be delayed awaiting a helicopter.

- I. The need for air transport should be based on:
  - A. Situations which might warrant use of a helicopter:
    1. Multiple trauma patient
    2. Severe head injury patient
    3. Severe burn patient
    4. Multiple patient incidents (MPI, MCI)
    5. Extended extrication resulting in extended scene times
      - a. vehicle extrications
      - b. water rescues
      - c. high angle rescues
      - d. trench rescues
    6. Traffic impediments/road conditions
      - a. snow or icy roads
      - b. traffic
      - c. obstructed scene
      - d. difficulty of ground ambulance to access the scene
    7. High system demands
  - B. Special Considerations
    1. Inclement weather preventing flight
    2. Helicopter unavailable

3. Landing zone proximity to the scene and consideration of an intermediate rendezvous point between the scene and hospital
4. Consider possibility that the helicopter may not be able to save time
5. May be appropriate to activate the helicopter and cancel if the patient is packaged and ambulance ready to transport
6. Patient size and weight may be restrictive to utilization of an air ambulance
  - a. Height: less than 6' 6"
  - b. Weight: 275 -300 lb limit
  - c. Not combative patients (if applicable, RSI prior to going into helicopter)

## II. Activation of Helicopter Air Ambulance

- A. Activation of helicopter will be requested through Incident Command to Central Dispatch.
  1. First request for REACH
  2. If REACH unavailable, request for LifeFlight
    - a. Obtain ETA; reconsider decision if delay compromises on-scene time for patient transport
    - b. Provide dispatch with GPS coordinates of landing zone (LZ).
  3. Units may cancel helicopter ambulance service if patient condition changes or if patient is ready for ground transport, and the helicopter is not on scene
- B. Incident Command will direct establishment of landing zone (LZ).
  1. LZ Coordinator will observe and report to the responding helicopter crew:
    - a. Hazards
    - b. Obstructions (in/out of landing zone)
    - c. Terrain features
    - d. Surface conditions
    - e. Animals & livestock
    - f. Wind/weather (velocity, visibility, & cloud height)
  2. Landing Zone preparation
    - a. Day time: 75' x 75'
    - b. Night time: 125' x 125'



3. Information about scene and patient to be relayed to responding helicopter.

The flight crew will request landing zone information from the LZ Coordinator when they are approximately 5 minutes from the LZ. The flight crew requests no radio traffic to the helicopter during short final (30 seconds to touchdown) unless a hazard to the helicopter exists, at which time the LZ Coordinator should immediately advise the flight crew to "ABORT LANDING." Radio traffic is restricted during the short final period so the flight crew can communicate any scene hazards to the pilot and assist him in clearing the tail rotor.

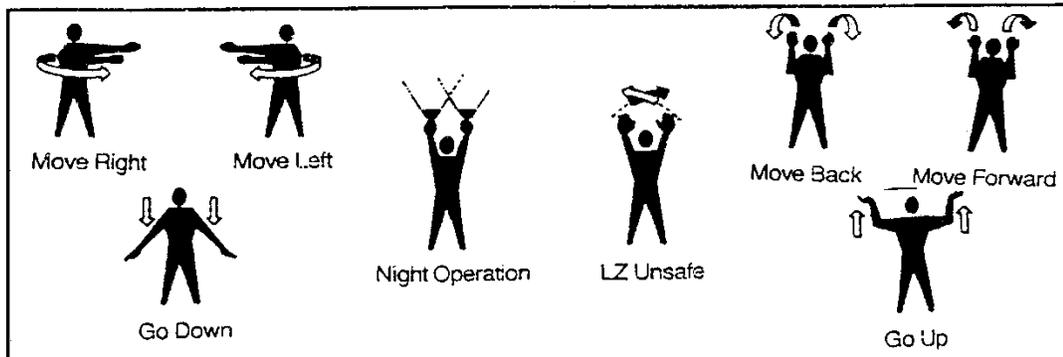
The flight crew will request the following LZ information from the LZ Coordinator:

- Location
- Overhead obstructions
- Wind speed and direction
- LZ markings, (i.e. flares, cones)
- Location of LZ Coordinator
- Mechanism of injury
- Patient condition (include vital signs and lung sounds)
- Treatment that has been provided.

4. Landing of Helicopter

- a. Stay clear of rotor
- b. Follow flight crew's instructions
- c. Never approach unless directed by flight crew

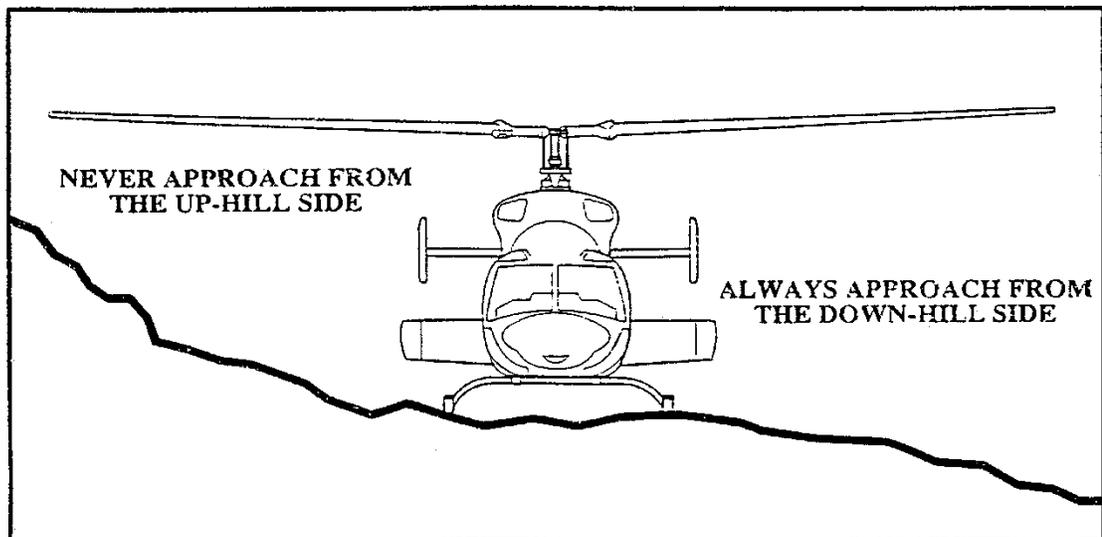
- d. Never approach from an uphill slope
- e. Secure all loose objects in LZ



### 5. Approaching the Helicopter

Once the helicopter has landed and the LZ Coordinator has secured the tail rotor, no other personnel should approach the helicopter unless directed by the flight crew. Do not bring the patient to the helicopter, the Flight Nurse will come to you. No vehicles, including emergency vehicles, should be within 75 feet of the aircraft.

If a flight crew member directs you to approach the aircraft, maintain eye contact with that crew member at all times. Approach in a crouched position. Hands or equipment should not be raised above your head. Baseball caps or other loose articles should not be worn around the aircraft. If the aircraft should have to land on a slope, always approach and depart from the down-slope side only. Helmets should be secured to your head using chin straps.



6. Five personnel to assist in loading patient in helicopter, 1 on airway, 4 to load
  - a. Flight crew will direct loading of patient
  - b. Flight crew to direct crew when it is safe to leave the side of the aircraft

### III. Case Review

- A. All Helicopter activations (including cancellations) will be reviewed by EMS Medical Control and the Area Trauma Advisory Board (ATAB 2).

## **MCI**

### **Standard Dispatch Protocol**

These alarms will normally be used after the dispatch and report of the first arriving units. However, it may be initiated by the dispatcher based upon the information received from the caller.

When the situation is larger than the initial response can handle, the use of additional alarms gives the IC a simple method to get additional equipment. The first alarm may get a larger response from the District that covers that area, the equipment listed here is the minimum response required.

- **First Alarm Medical** – total of (3) medic units; (2) engines/trucks **or** (1) rescue and (1) engine/truck, **and** (2) command officers.
  - (The total first alarm units would include whatever units were initially dispatched or are already on scene)
- **Second Alarm Medical** – (3) medic units, (2) engines/trucks, **and** (1) command officer
- **Third Alarm Medical** – (3) medic units, (2) engines/trucks, **and** (1) command officer

**Note:** \*Helicopters will be sent on the request of command.

\*Command should be asked about the need for buses on any first alarm or greater.

**Where “engine/truck” is used it can be any combination of engines, trucks or rescues that gives the correct number of units responding.**

**Where “medic unit” is used ambulances are preferred. Depending on the size of the incident, the medic units responding may need to be a combination of medic units and transportable rescues units, as long as you get the total number required.**

The incident commander may call individual units as opposed to using the “Alarm” designations noted above. However, the “Alarm” method gives them set resources without having to individual call units.

A “Medical Alarm” in any area of the county will require the move-up of units from another area of the county (or surrounding counties) to cover areas left open due to the initial alarm. As the “Alarms” go higher, it will be necessary to reach farther out to get the resources for the alarm and to cover up open areas.