

# INCIDENT COMMAND SYSTEM

## HIGH RISE STRUCTURE FIRE OPERATIONAL SYSTEM DESCRIPTION

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This document contains information relative to the Incident Command System (ICS) component of the National Incident Management System (NIMS). This is the same Incident Command System developed by FIRESCOPE.

Additional information and documentation can be obtained from the following sources:

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## INTRODUCTION

The High-Rise module describes an all hazard organization designed to provide effective management and control of essential functions at incidents occurring in large, multi-story buildings. These incidents may present significant management, logistical and safety challenges to emergency personnel.

The size and complexity of the interior spaces; limited, sometimes arduous access, with extended travel and response times all contribute to the problems faced by emergency responders.

Additionally, most high-rise structures are equipped with various environmental, fire protection, and life safety systems that require support and control. Successful emergency operations in these types of buildings also require preplanning and technical competence on the part of emergency responders.

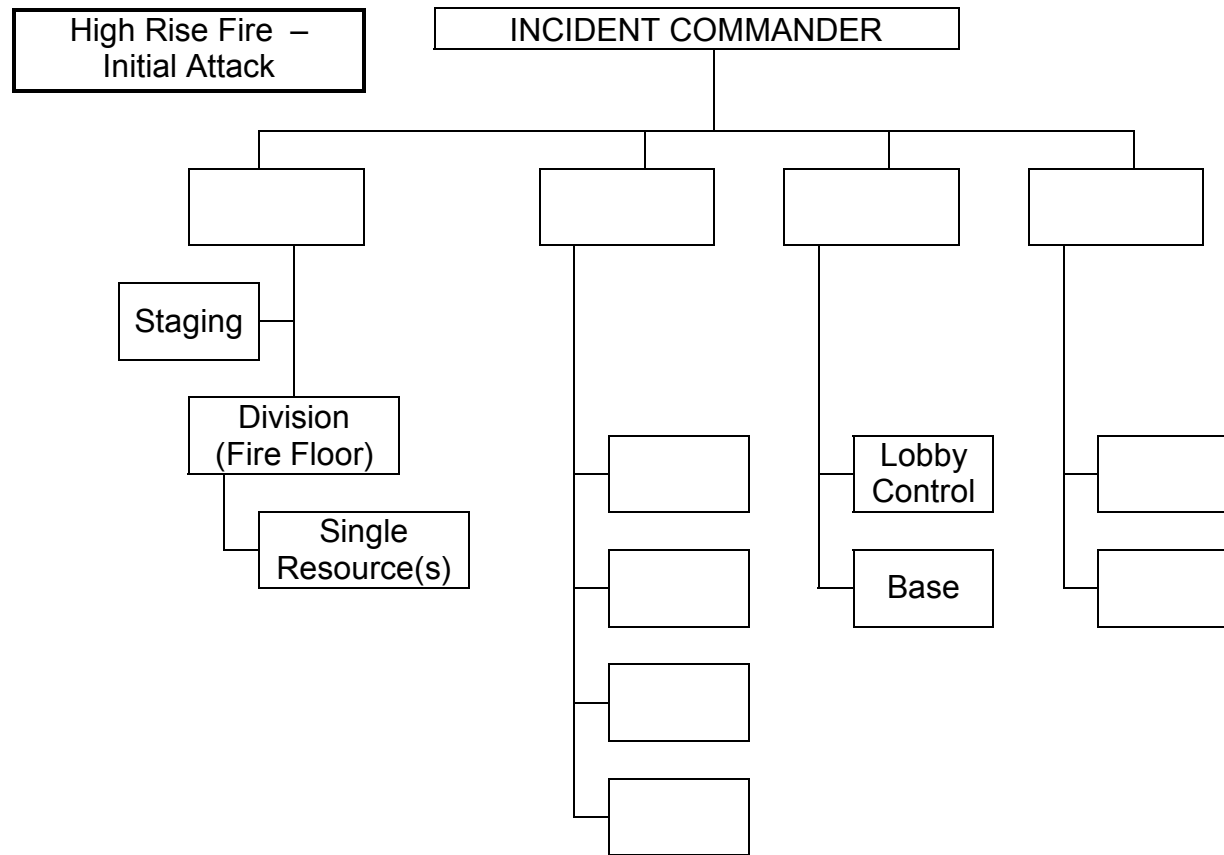
## MODULAR ORGANIZATION DEVELOPMENT

The order in which the ICS organizational structure develops may vary with the type and scope of the incident. Following are examples of modular development of the ICS that serve to illustrate typical methods of expanding the management organization at a high-rise incident. These examples reflect the size and complexity of the incident and the available resources at a given time in the incident:

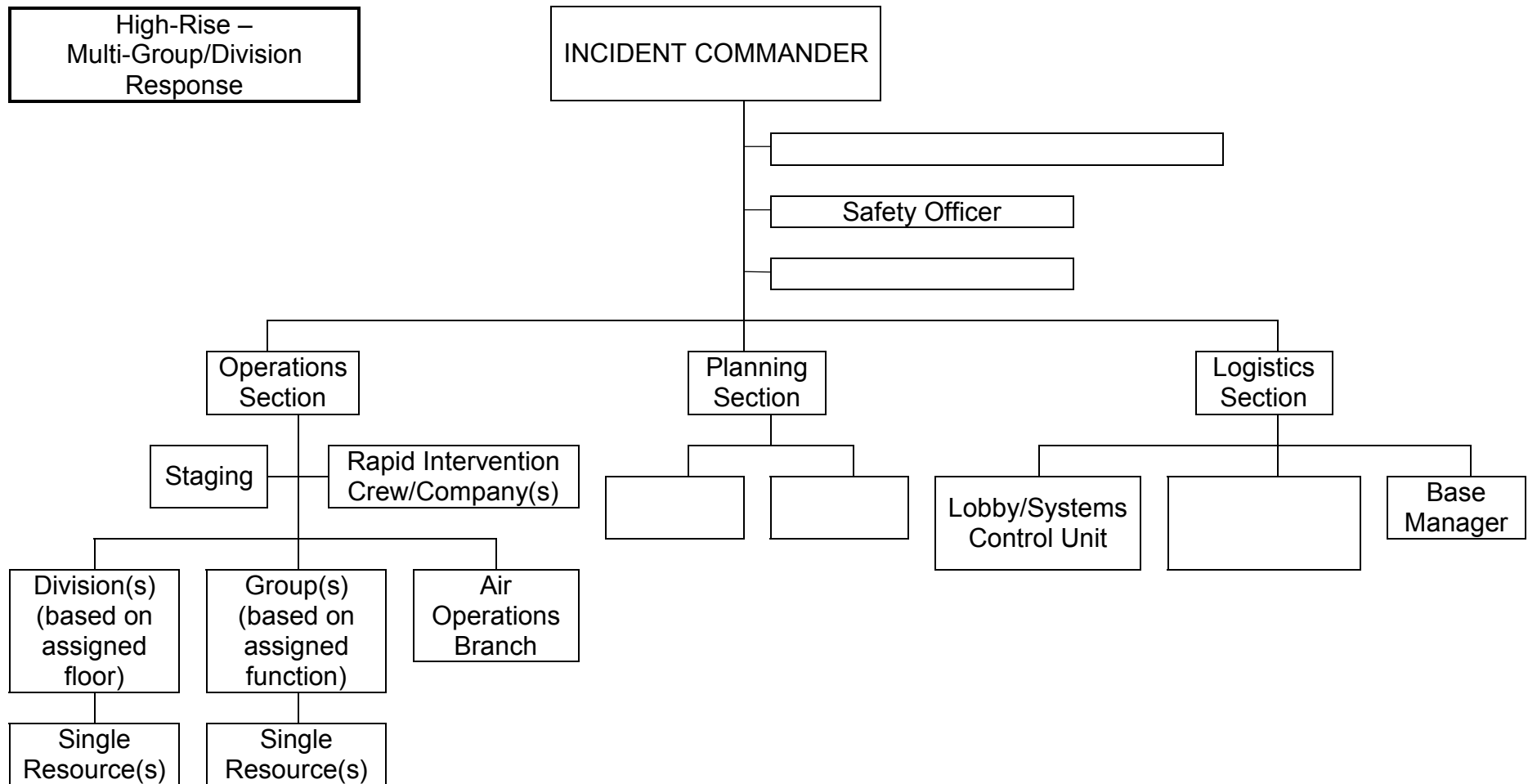
Initial Response Organization: The Incident Commander manages the initial response resources as well as all Command and General Staff responsibilities.

Multi-Group/Division Organization: The Incident Commander has established most Command and General Staff positions and has established a combination of divisions and groups to reflect the location and nature of the incident.

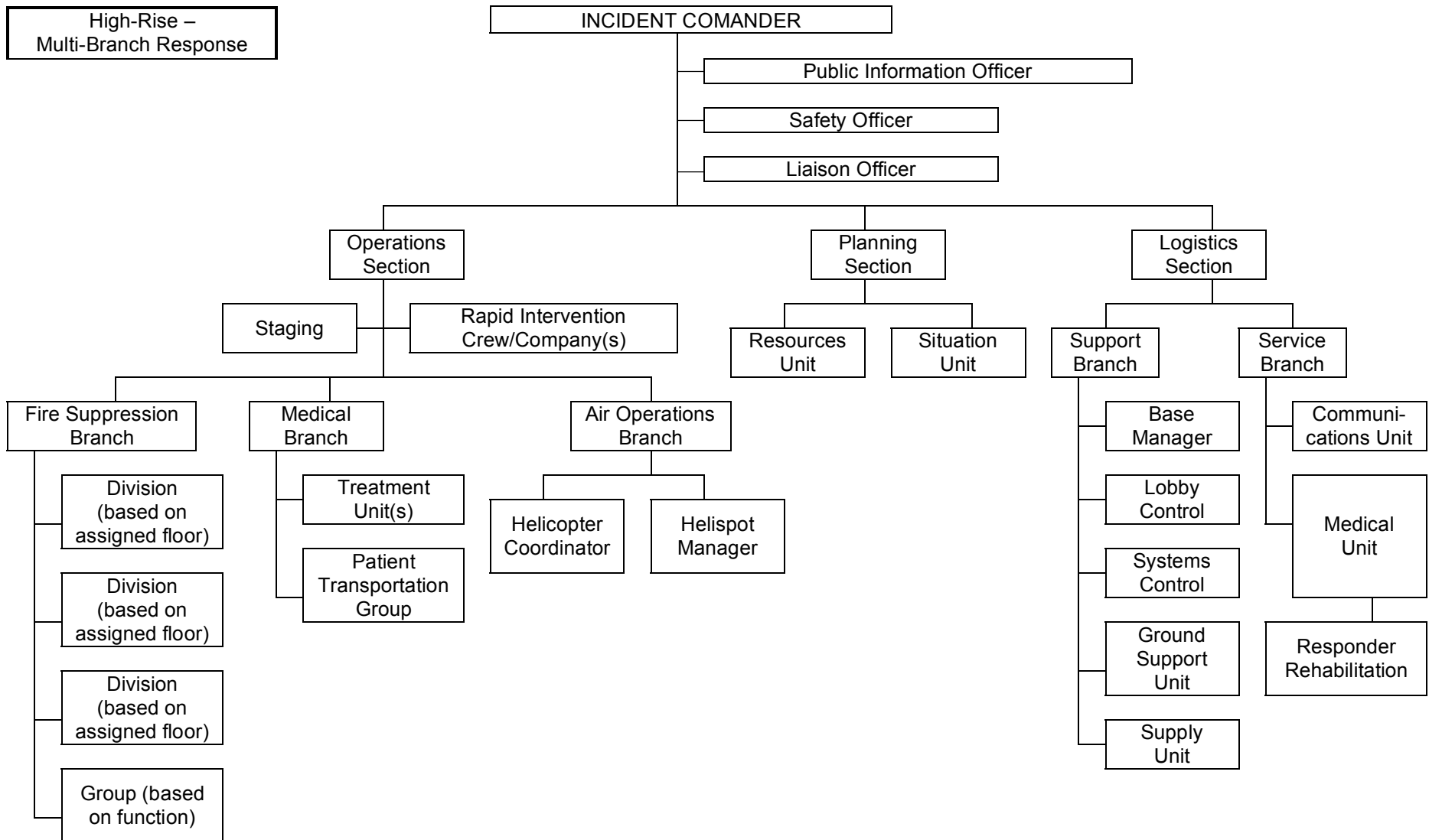
Multi-Branch Organization: The Incident Commander has identified a number of actual or potential incident challenges and has established all Command and General Staff positions. The IC has also established several branches to effectively manage the problems and the resources required for mitigation.



High-Rise Fire Initial Attack (example): This chart depicts the initial assignment including a Command Officer on a fire involving a single floor of a high-rise building. The IC has deployed resources to Fire Attack, Lobby Control, Staging, and Base (ALS-BASE).



High-Rise Multi-Group/Division Response (example): As additional resources arrive, the IC has activated the Operations Section Chief along with multiple Divisions to supervise action on each involved or threatened floor. Rapid Intervention Crews/Companies are assigned as determined most effective by Operations. Groups may be assigned certain functions such as medical care for victims, or stairwell pressurization/ventilation. Air Operations Branch will coordinate helicopters used for evacuations or reconnaissance. The Planning Section is activated with selected units. Logistics is assigned to manage Lobby Control, Systems Control, Ground Support, and the Incident Base.



**High-Rise Multi-Branch Response (example):** The fire has involved multiple floors with various Divisions and Groups assigned. This complexity has led the Operations Section to create a Fire Suppression Branch to manage these Divisions and Groups. A Medical Branch is established and the Air Operations Branch is expanded. The Planning Section has expanded to include the Resources Unit and Situation Unit. Logistics Section has activated the Support and Service Branches as well as various Units within each Branch to accommodate the extensive logistical requirements for this size incident.

## DESIGNATED INCIDENT FACILITIES

Base and Staging have modified functions and locations in high-rise incidents:

**Staging Area:** The challenging nature of high-rise incidents requires modification to the standard ICS concept of a Staging Area. The limited access and vertical travel distance of large high-rise buildings require establishment of a resource Staging Area within the building. The high-rise Staging Area must also serve multiple functions. The Staging Area is generally located a minimum of two floors below the emergency, as long as the atmosphere is tenable. The specific changes are described in the Staging Area Manager's Position Description.

**Base:** The Base at a high-rise incident resembles a ground level Staging Area. The main difference between Base and a typical Staging Area is that Base must be expanded to perform the functions inherent to supporting large numbers of personnel and equipment. Base should be located away from away from the incident building to provide for the safety of personnel and equipment.

## ORGANIZATION AND OPERATIONS

**Modified ICS Positions:** Certain existing ICS positions and functional units within the high-rise incident organization have modified responsibilities that require full descriptions. These positions include: Staging Area Manager, Rapid Intervention Group Supervisor, Base Manager, Ground Support Unit Leader and Evacuation Group Supervisor.

**Specialized High-Rise ICS Positions:** Lobby Control and Systems Control Unit Leaders are specialized functional positions specific to a high-rise incident.

Lobby Control Unit is established to provide access control, accountability, and routing inside the building. As the incident escalates, a separate Systems Control Unit may be established to operate, supervise, and coordinate the vital operation of specialized systems incorporated into modern high-rise buildings. These systems may include electrical supply and smoke removal systems. Systems Control Unit coordinates the efforts of various Technical Specialists who might be required to assist in the operation and/or repair of the various systems. During the initial period of an incident, or in a less complex building, the Lobby Control Unit may assume the functions of the Systems Control Unit as shown in the basic organization chart.

The positions and modifications are described in the position checklists that follow. The major responsibilities and procedures for each are further explained in the position manuals.

## POSITION CHECKLISTS

**HIGH-RISE INCIDENT LOBBY CONTROL UNIT LEADER** - The High-Rise Incident Lobby Control Unit Leader's primary responsibilities are as follows: maintain an accountability system, control all building access points and direct personnel to correct routes, control and operate elevator cars, and direct building occupants and exiting personnel to proper ground level safe areas. As directed by the Incident Commander or agency policy, this unit may be



assigned the responsibilities of the Systems Control Unit. The Lobby Control Unit Leader reports to the Support Branch Director/Logistics Section Chief. The Lobby Control Unit Leader should be prepared to provide the Incident Commander or Planning Section with current information from the personnel accountability process.

The safest method of ascending to upper floors is the use of stairways. The use of elevators for emergency operations should be determined by department policy. This determination is the ultimate responsibility of the Incident Commander; however, the Lobby Control Unit Leader coordinates the actual use of elevators:

- a. Check in and obtain briefing from Support Branch Director, Logistics Section Chief or Incident Commander.
- b. Make entry, assess situation, and establish Lobby Control position.
- c. Request needed resources.
- d. Obtain building access keys.
- e. Establish entry/exit control at all building access points.
- f. Maintain accountability for personnel entering/exiting the building.
- g. Assure personnel are directed to the appropriate stairways/elevator for assignment.
- h. Control the elevators and provide operators if approved for use by the Incident Commander.
- i. Provide briefings and information to Support Branch/Logistics Section or the Incident Commander.
- j. Perform the functions of the Systems Control Unit when directed by the Incident Commander or agency policy.
- k. Secure operations and release personnel as determined by the Demobilization Plan.
- l. Maintain Unit/Activity Log (ICS Form 214).

**HIGH-RISE INCIDENT SYSTEMS CONTROL UNIT LEADER** - The High-Rise Incident Systems Control Unit Leader is responsible for evaluating and monitoring the functions of all built-in fire protection, life safety, environmental control, communications and elevator systems. The Systems Control Unit Leader may operate, support or augment the systems as required to support the incident plan. The Systems Control Unit Leader reports to the Support Branch Director (if established) or to the Logistics Section Chief. Working with the building's engineering staff, the System Control Unit Leader may respond directly to requests from the Operations Section Chief by using the manual operation modes of the various built-in systems. The Systems Control Unit Leader must establish and maintain a close liaison with building's engineering staff, utility company representatives, and other appropriate technical specialists:

- a. Check in and obtain briefing from the Lobby Control Unit, Support Branch Director, Logistics Section Chief or Incident Commander:
- b. Briefing must include the type and performance of built-in systems.
- c. Introductions to building's engineering staff should occur at briefing.
- d. Evaluate current situation and request needed personnel and resources.
- e. Establish communication with the building engineer, utility company representatives, elevator service personnel or others to coordinate the operation of selected systems.
- f. Assign personnel to monitor all building fire protection/life safety systems.
- g. Evaluate the status and operation of the building's fire and domestic water pumps and water supply (support as needed).

- h. Evaluate the operational effectiveness of the heating, ventilation, and air-conditioning system (HVAC); the smoke removal system; and stairwell protection system (support as needed).
- i. Evaluate the building's electrical system, emergency power systems, and security systems (support as needed).
- j. Evaluate the public address, telephone, emergency phone, and other building communications systems (support as needed).
- k. Secure operations and release personnel as determined by the Demobilization Plan.
- l. Maintain Unit/Activity Log (ICS Form 214).

**HIGH-RISE INCIDENT STAGING AREA MANAGER** - The High-Rise Incident Staging Area Manager is responsible for the management of all functions at the Staging Area, and reports to the Operations Section Chief.

- a. Obtain briefing from Operations Section Chief or Incident Commander.
- b. Proceed to selected location and evaluate suitability:
  - Make recommendations regarding relocation, if appropriate.
- c. Request necessary resources and personnel.
- d. Establish Staging Area layout and identify/post each functional area i.e., Crew-Ready Area, Air Cylinder Exchange, Equipment Pool, and Medical Unit if collocated within the Staging Area.
- e. Determine, establish, or request needed facility services i.e., drinking water and lighting.
- f. Coordinate with Logistics Section or Systems Control Unit to maintain fresh air.
- g. Maintain a personnel accountability system for arriving and departing crews.
- h. Request required resource levels from the Operations Section Chief:
  - Maintain levels and advise the Operations Section Chief when reserve levels are reached.
- i. Coordinate with the RIC Group Supervisor to designate area(s) for Rapid Intervention Crew (RIC) to standby if collocated within the Staging Area.
- j. Direct crews and equipment to designated locations as requested by the Operations Section Chief or Incident Commander.
- k. Secure operations and release personnel as determined by the Demobilization Plan.
- l. Maintain Unit/Activity Log (ICS Form 214).

**HIGH-RISE INCIDENT RAPID INTERVENTION GROUP SUPERVISOR** – The High-Rise Incident Rapid Intervention Group Supervisor is responsible for the management of Rapid Intervention Crew(s). The High-Rise Incident Rapid Intervention Group Supervisor's organizational responsibilities vary from the standard ICS position due to the potential for above ground operations, extended response times, and RIC(s) operating on different floors/stairwells. This position reports to the Operations Section Chief and requires close coordination with the Division/Group Supervisors and the Staging Area Manager:

- a. Obtain briefing from the Operations Section Chief or Incident Commander.
- b. Participate in Operations Section planning activities.
- c. Determine Rapid Intervention Group needs (personnel, equipment, supplies and additional support).
- d. Evaluate tactical operations in progress.
- e. Evaluate floor plans, above and below emergency operations.

- f. Assign and brief Rapid Intervention Crews based on number of stairwells and floors used for emergency operations.
- g. Verify potential victims and hazard locations and insure that Rapid Intervention Crew(s) are prepared for possible deployment.
- h. Notify Operations Section Chief or Incident Commander when Rapid Intervention Crew(s) are operational or deployed.
- i. Develop Rapid Intervention Crew(s) contingency plans.
- j. Secure operations and release personnel as determined by the Demobilization Plan.
- k. Maintain Unit/Activity Log (ICS Form 214).

**HIGH-RISE INCIDENT BASE MANAGER** -The High-Rise Incident Base Manager is responsible for the management of all functions at the Base location. This position within the organization differs from the standard ICS in that a Facilities Unit is not appropriate for this type of incident and the Base Manager reports directly to the Support Branch Director (if established) or Logistics Section Chief:

- a. Obtain briefing from Support Branch Director, Logistics Section Chief, or Incident Commander.
- b. Participate in Support Branch/Logistics Section planning activities.
- c. Determine Base needs (personnel, equipment, supplies and additional support).
- d. Evaluate layout and suitability of the selected Base location:
  - Make recommendations regarding relocation, if appropriate.
- e. Establish Base layout and identify functional areas to support the incident i.e., Apparatus Parking, Crew Ready Area, Equipment Pool, Rehabilitation Area, Command Post, and Sanitation.
- f. Provide for safety, security and traffic control at Base and Command Post.
- g. Provide facility services at Base and Command Post i.e., sanitation, lighting and clean up.
- h. Maintain accounting of resources in Base. Periodically update Logistics Section, Planning Section or Incident Command.
- i. Direct personnel and equipment to designated locations as requested.
- j. Provide an auxiliary water supply to the building, if required.
- k. Update Support Branch, Logistics Section or Incident Commander as directed.
- l. Secure operations and release personnel as determined by the Demobilization Plan.
- m. Maintain Unit/Activity Log (ICS Form 214).

**HIGH-RISE INCIDENT GROUND SUPPORT UNIT LEADER** - The High Rise Incident Ground Support Unit Leader is responsible for providing transportation for personnel, equipment, and supplies refilling of SCBA air cylinders; providing fueling, service and maintenance of vehicles and portable power equipment and tools; and implementing the ground level Traffic/Movement Plan at the incident including marking safe access routes and zones. The Ground Support Unit Leader reports to the Support Branch Director (if established) or the Logistics Section Chief:

- a. Obtain briefing from Support Branch Director, Logistics Section Chief, or Incident Commander.
- b. Participate in Support Branch/Logistics Section planning activities.
- c. Identify, establish, and implement safe movement routes and exterior Safe Refuge Areas identified in the Traffic and Personnel Movement Plans.

- d. Assign personnel to transport services including stairwell, ground level, and general motor transport.
- e. Assign personnel to fueling, maintenance, and support of apparatus and portable power equipment and emergency power systems as appropriate.
- f. Assign personnel to SCBA air cylinder refilling, maintenance and support.
- g. Maintain inventory of support and transportation vehicles, maintenance and fuel supplies.
- h. Update Support Branch, Logistics Section, or Incident Commander as directed.
- i. Secure operations and release personnel as determined by the Demobilization Plan.
- j. Maintain Unit/Activity Log (ICS Form 214).

**HIGH-RISE INCIDENT EVACUATION GROUP SUPERVISOR** - The High-Rise Incident Evacuation Group Supervisor is responsible for managing the movement of building occupants through designated evacuation route(s) to a safe location. This position reports to the Operations Section Chief or Branch Director if established:

- a. Obtain briefing from the Branch Director, Operations Section Chief or Incident Commander.
- b. Participate in Operations Section planning activities.
- c. Determine Evacuation Group requirements (personnel, equipment, supplies).
- d. Ensure the evacuation in progress is to a safe location.
- e. Confirm evacuation stairwell(s) with the Operations Section and Ground Support.
- f. Ensure ventilation of evacuation stairwell(s) and Safe Refuge Areas.
- g. Coordinate evacuation message with Systems Control Unit utilizing the building's Public Address System.
- h. Assign personnel in the evacuation stairwell(s) to assist/direct building occupants to a safe location.
- i. Secure operations and release personnel as determined by the Demobilization Plan.
- j. Maintain Unit/Activity Log (ICS Form 214).