	Standard Operating Guideline	401
		Operational Guidelines
<i>Incident Command and Operational Guidelines</i>		
Issue Date: April 17, 2019	Supersedes: N/A	
Reviewed/Revised By: A/C D.C. Mickler Operations Battalion Chiefs / Training & Safety Division	Approved By: J.S. Mason, Fire Chief	
Reviewed/Revised: <i>Sept 26, 2025 – Section 12.0 PAGES 131 – 136 / October 14, 2025 – Section 13.1.2 Pg 138 ILM</i>		

WFD TACTICAL 401

Purpose

The Wilmington Fire Department Tactical 401 Incident Command and Operational Guidelines provide a structured framework for standardized strategic and tactical objectives during emergency scene operations. These guidelines facilitate a comprehensive approach to incident management by addressing key areas such as command establishment, communication protocols, search and rescue priorities, personnel deployment, and operational tactics to ensure efficient and effective emergency response.

The primary objectives of this guideline are to:

- Enhance overall safety
- Ensure accountability
- Establish expectations and improve the effectiveness of fire and rescue operations
- Utilize Critical Factors to determine Tactical Objectives

WILMINGTON FIRE DEPARTMENT PRIMARY / SECONDARY SEARCH

The Incident Commander should assign a primary search team at the earliest opportunity with a dedicated company. Even light smoke conditions warrant a primary search. For heavily involved structures, the primary search team can conduct a 360-degree assessment, looking for victims in the yard or identifying a space for quick vent-enter-isolate-search (VEIS) operations.

Primary and secondary searches should be prioritized, even for smoke investigations or alarms. These situations are opportunities to train in unfamiliar environments—skills gained here can make the difference between a successful and unsuccessful rescue. Rapidly getting water on the fire, initiating a primary search, and positioning a backup line to protect egress must happen as efficiently and effectively as possible.

Our training, experience, and gear provide protection that civilians do not have, making their rescue our ultimate priority. Improved communication, tactical objectives, awareness, training, and on-scene culture enhance civilian outcomes and firefighter safety.

WILMINGTON FIRE DEPARTMENT FIRE GROUND READINESS

The Wilmington Fire Department emphasizes fire ground readiness by prioritizing and establishing a secured water supply, strategic engine and truck company placement, and adequate ground ladder deployment on all fire incidents.

Water Supply

- A secured water supply/FDC is essential and should be prioritized, even for smoke investigations or alarms. A 5" LDH (large diameter hose) dry stretch to the nearest hydrant must be established to allow a rapid transition to an active water supply if the situation does not quickly de-escalate.
- Awareness of water supply must be maintained during pre-plans, annual hydrant checks, en route to incidents, and throughout initial operations. Proactively stretching LDH or assigning the stretch to a better-positioned apparatus significantly enhances operational efficiency.

Truck Company Placement

- The first arriving truck company must effectively position itself to maximize scrub area and operational footprint and to provide a roof report if the Incident Commander (IC) requests it. Truck Company Placement is essential and should be prioritized, even for smoke investigations or alarms, to allow a roof report.
- Truck operational footprint refers to the total area a fire apparatus occupies on the fireground during setup. This includes the space required for the vehicle, outriggers, and aerial device when fully deployed. Truck scrub area refers to the portion of a fire building that can be physically reached and contacted by the platform basket of a tower ladder or the tip of an aerial ladder.
- Utilizing aerial apparatus is vital for fire, gas leak, and odor investigations. The aerial should ensure comprehensive inspection of all structure sides, providing the IC with critical information for tactical decision-making.

- All truck companies arriving after the first truck should position themselves in staging in a manner that enables rapid repositioning by the IC. This ensures additional truck company aerial operations can be efficiently deployed to any side of the structure as needed.

Ground Ladder Deployment

- Ground ladders must be deployed on all fire incidents, specifically for structures with two or more divisions. **Rule of Thumb:** *Ground ladder deployment is incomplete unless all ground ladders are utilized, or every window and potential egress point has a ladder placed. Additional ladders should be deployed as necessary.*
- The objective is to cover at least 50% of the structure's sides with ladders, ensuring both roof access and egress points are addressed. This ensures that firefighters operating inside or on the structure's roof will likely locate a ladder for emergency egress or victim rescue when needed.

Contents

Summary of Command Function #1: Deployment.....	14
Summary of Command Function #2: Assume and Confirm the Positioning of Command.....	14
Summary of Command Function #3: Situation Evaluation.....	15
Summary of Command Function #4: Strategy & Incident Action Planning.....	15
Summary of Command Function #5: Communication and Strategy Management.....	16
Summary of Command Function #6: - Organization.....	16
Summary Command Function #7: Review, Evaluate, and Revise.....	17
Summary of Command Function #8: Continue Support & Terminate Command.....	17
1.0 - Command Function #1: Deployment.....	18
1.1 - Company Status.....	18
1.2 - Dispatch Center.....	18
1.2.1 - Standard Structural Fire Dispatch Packages and Terminology.....	19
Key Terminology and Definitions.....	19
Apparatus Definitions.....	19
Operational Components.....	20
Incident Management and Coverage.....	21
Dispatching Incidents.....	21
Acknowledgment:.....	21
Radio Communication:.....	21
Multi-Channel Operations.....	21
Telecommunicator Roles.....	22
Self-Dispatch Protocols.....	22
Adding Unit to a Dispatched Incident.....	23
Communication Guidelines.....	23
Response and General Scene Safety.....	24
1.3 - Emergency Response Driving Procedures.....	25
General Safety Procedures.....	26
1.4 - Establishing Command.....	27
Command Responsibilities.....	27
1.5 - Calling for Additional Resources.....	28

1.6 - Staging Procedures.....	28
1.6.1 - Level 1 Staging.....	28
1.6.2 - Level 2 Staging.....	29
1.7 - Assigning Units into a Hazard Zone.....	30
1.7.1 - Hazard Zone Accountability.....	30
1.7.2 - Company/Task-Level Accountability Responsibilities.....	31
Crew Splitting Guidelines:.....	31
Passport Tag Placement:.....	32
1.7.3 - Tactical Level Accountability Responsibilities	32
Fireground Terminology for Tactical Areas:.....	32
1.7.4 - Strategic Level Accountability Responsibilities.....	33
1.7.5 - Tactical Worksheets	33
1.7.6 - PARs and Roll Calls	34
Passport Accountability System (PAS)	35
General Passport Guidelines.....	37
Managing the Work/Rest Cycle.....	37
The 3-Deep Deployment Model.....	38
On-Deck Operations.....	39
On-Deck Assignments.....	39
Crew Requirements for On-Deck Assignment.....	40
Responsibilities of On-Deck Crews.....	40
Relief Operations.....	41
Company Recycling and Rehab Guidelines.....	41
Company Recycling.....	41
2.0 - Command Function #2: Assume and Confirm the Positioning of Command.....	43
2.1 - Establishing Command	43
2.2 - Naming Command: Radio Designation	44
2.3 - Command Positioning.....	44
2.4 - Investigative Command Position ("Nothing Showing").....	44
2.5 - Fast-Attacking Command Position.....	45
2.5.1 - Company Officer ICs.....	45
2.6 - Command Position: Company Officer.....	46

2.7 - Command Position: Chief Officer	48
2.8 - Transferring Command.....	49
Process for Transferring Command.....	49
Steps for Transferring Command:.....	49
Best Practices for Command Transfer	49
2.9 - Packaging Command for Ongoing Operation and Escalation	50
Advantages of a Stationary Command Position.....	50
2.10 - Upgrading the Command Post (CP).....	50
2.11 - Command Teams	51
3.0 - Command Function #3: Situation Evaluation.....	52
3.1 - Matching Standard Conditions to Standard Actions.....	52
3.2 - Strategic Decision-Making Model.....	53
3.3 - Information Management	53
3.3.1 - Previous Experience	54
3.3.2 - Visual Observation	54
3.3.3 - Reconnaissance Information.....	55
3.3.4 - Pre-Incident Planning (PIP).....	55
3.4 - Critical Factors	56
3.4.1 - Building Factors	56
3.4.2 - Occupancy Factors	57
3.4.3 - Arrangement Factors	57
3.4.4 - Life Safety Factors - PRIORITY	57
3.4.5 - Fire Factors.....	58
3.4.6 - Resource Factors	58
3.4.7 - Action Factors.....	58
3.4.8 - Special Circumstances.....	58
3.5 - Managing Critical Factors	59
Revising the Incident Action Plan (IAP):.....	59
3.5.1 - Fixed vs. Variable Factors.....	59
3.5.2 - Critical Unknowns	60
3.5.3 - Safety "Red Flags"	60
3.5.4 - 10-Minute Elapsed Incident Time Notifications	60

3.5.5 - Tactical Priorities and Time Considerations.....	61
3.5.6 - Continuous Reevaluation	61
4.0 - Command Function #4: Strategy & Incident Action Planning.....	61
4.1 - Matching Standard Conditions to Standard Actions for Standard Outcomes.....	61
4.2 - Strategic Decision-Making Model.....	61
4.3 - Developing the Incident Strategy and IAP Using Critical Factors	63
4.4 - Risk Management Plan (RMP).....	63
4.5 - Determining the Overall Incident Strategy	63
4.6 - Declaring the Incident Strategy in the Initial Radio Report (IRR)	64
4.7 - Confirming Ongoing Strategy with Elapsed-Time Notifications (ETN)	64
4.8 - Implementing the Strategy and IAP with Incident Organization and Communications	64
4.9 - Standard Company Functions	65
Standard Operations for Engine, Truck, Rescue, Squad Companies.....	65
Standard Engine Company Functions.....	66
Standard Support Company Functions (Truck or Rescue Companies)	66
Standard Support Company Functions (Squad Companies).....	66
4.10 - Strategic Level Water Supply Considerations.....	67
4.11 - Strategic Level Attack Line Deployment.....	68
4.11.1 - Fire Streams and Fire Control.....	69
Smooth Bore Nozzles:.....	69
Fog Nozzles:.....	69
Water Can:	69
Hose Line Selection:.....	70
WFD Engine Company Standardization (Effective March 1, 2023)	70
Pre-Connect 1.75" Minuteman Hose Loads:.....	70
2.5" Seattle Load:.....	70
1.75" Condo Kit Bundles:	70
5" LDH (Large Diameter Hose):.....	70
Standardized Terminology for Hose Deployment:	70
Grip Techniques for Advancing Hose Lines:.....	70
Deployment Commands and Techniques:.....	71
Hose Load Terminology:.....	71

4.12 - Tactical Priorities.....	71
4.13 - Offensive Incident Action Planning.....	72
NHC 911 Telecommunicator Time Stamps:	73
4.13.1 - Offensive Search and Rescue Operations.....	73
4.14 - Defensive Incident Action Planning.....	76
4.14.1 - Transitioning from Offensive to Defensive Strategy	77
4.14.2 - Exposure Protection and Strategic Separation.....	77
4.14.4 - Defensive Loss Control.....	78
5.0 - Command Function #5: Communications	79
5.1 - Using Plain Text.....	79
5.2 - Forms of Communication: Face-to-Face, Radio, Computers, and SOPs.....	79
5.3 - Align Communications with Tactical Benchmarks	80
5.4 - Upgrading the Fast-Attacking Command Position.....	80
5.5 - Critical Listening and Understanding Communication Challenges.....	81
5.6 - Organizational Chart as a Communication Flow Plan	81
5.7 - Maintaining Communication Availability.....	81
5.8 - Standard Order Model for Structured Communications.....	82
5.9 - Seven Basic Types of Radio Transmissions	82
5.10 - Standard Initial Radio Report (IRR)	82
5.10.1 - Clearing an Alarm	83
5.10.2 - Building/Area Description	83
5.10.3 - Describing the Problem.....	83
Exposures.....	85
Floors as Divisions.....	85
5.10.4 - Initial Incident Action Plan (IAP):.....	85
5.10.5 - Declaration of Incident Strategy:	86
5.10.6 - Resource Determination:.....	86
5.10.7 - Assume and Name Command:.....	86
5.11 - Follow-Up Reports:.....	87
5.11.1 - Results of a 360-Degree Size-Up:.....	87
5.11.2 - Changes to the IAP:	87
5.11.3 - Accountability Location:.....	87

5.11.4 - Immediate Safety Concerns:.....	88
5.12 - Assigning Units:.....	88
5.13 - Command Transfers:	88
5.14 - CAN Reporting	89
5.15. – Routine, Non-Emergency Radio Traffic.....	91
5.15.1- Routine Radio Traffic:	92
5.15.2 Special Circumstances/Storm Mode.....	92
5.15.3 – Fire Control Reports.....	93
5.15.4 - Status Changes.....	93
5.15.5 - Roof Reports.....	93
5.15.6 - Priority Traffic Reports.....	94
5.16 - Emergency Traffic.....	95
5.17 - Offensive to Defensive Strategic Shift	95
6.0 - Command Function #6: Organization	96
6.1 - Organizational Levels.....	97
6.2 – Fast-Attacking ICs (IC #1).....	97
6.3 - Subdividing the Incident Scene.....	98
ICS/NIMS Terminology.....	98
Establishing Geographic Landmarks.....	98
6.4 - Forecasting and Establishing Geographic & Functional Responsibilities	100
6.5 - Company Officer: Hazard Zone Tactical Supervision	101
6.6 - Command Officer: Hazard Zone Tactical Supervision.....	102
6.7 - Hazard Zone: Tactical Level Supervision Guidelines.....	102
6.8 - Hazard Zone: Defensive Tactical Level Supervision	103
7.0 - Command Function #7: Review, Evaluate, and Revise	103
7.1 - Execute Command Functions in Standard Order	103
7.2 - Strategic Decision-Making Model.....	104
7.3 - Early Implementation of Command Elements	104
7.4 - Receive and Evaluate CAN Reports.....	105
7.5 - Strategic and Action-Plan Review Checklist.....	105
7.6 - Strategy Transitions and IAP Revisions.....	106
8.0 - Command Function #8: Continue Support & Terminate Command	106

8.1 - Assume, Maintain, and Upgrade an Effective Command Position.....	107
8.2 - Use Standard Command Transfers	107
8.3 - Develop and Maintain Effective Fire Ground Communications.....	107
8.4 - Sharing Pertinent Information.....	108
8.5 - Estimate Time Required for Tactical Priorities	108
8.6 - Estimate Command Duration.....	108
8.7 - Build and Sustain an Organization That Outlasts the Incident.....	109
8.8 - Establishing a Command Team.....	109
8.9 - Transitioning to Incident Termination.....	109
8.9 - Sections and Branches.....	112
8.9.1 - Operations Section.....	112
8.9.2 - Logistics Section	113
8.9.3 - Planning Section.....	113
8.9.4 - Finance and Administration Section.....	113
8.9.5 - Safety Section	113
8.10 - Branches.....	114
8.11 - Provide Rehab, Rotation, and Relief for Command Staff	114
8.12 - Reducing the Command Structure.....	114
8.13 - Critique Process	114
8.14 - Demobilization Plan.....	114
8.15 - Critical Incident Support	114
Appendix A - Tactical Guidelines.....	115
1.1 - 2 IN 2 OUT Parameters.....	115
1.2 - Exception Provisions to the 2 IN 2 OUT Requirement.....	115
2.0 - Mayday Procedures.....	115
3.0 - Rapid Intervention Team (RIT).....	116
3.1 - RIT Responsibilities.....	116
5.0 - S.L.I.C.E.R.S. Transitional Attack Option	117
6.0 - Fire Types.....	117
6.1 – Trash of Dumpster Fires.....	117
6.2 – Vehicle Fires.....	118
6.3 - Shipboard Firefighting.....	118

6.4 - Fireboat Operations	118
6.5 - Chimney Fire.....	118
6.6 - Odor of smoke	119
6.7 - Fire Reported Out	119
6.8 - Residential or Commercial Fire Alarm or Smoke Detector.....	119
6.9 - Fire Investigator Request.....	119
7.0 – Wildland / Woods Fire / Outside Fire.....	120
7.1 – Chain Saw Use (Tree Removal / Brush Removal / Wildland / Outside Fire).....	120
8.0 - Electrical Hazards	120
8.1 - General	120
8.2 - Transformer or Downed Wire	120
8.3 - Residential and Commercial Electrical Service.....	120
8.4 - Ground Transformer, Substation, Switch Station, Vault and Manhole Fire	121
9.0 - EMS Calls	121
9.1 - Response.....	121
9.2 - Arrival	122
9.3 - Motor Vehicle Crash or Extrication.....	122
9.4 - Elevator/Escalator and Moving Walkways	122
ELEVATOR.....	122
ESCALATOR.....	122
10.0 - Technical Rescue.....	122
10.1 - Structural Collapse.....	123
10.2 - Confined Space.....	123
10.3 - Rope Rescue.....	123
10.4 - Trench Rescue	123
11.0 - Water Rescue and Recovery	124
6.0 - Fire Types.....	124
6.1 – Trash of Dumpster Fires.....	124
6.2 – Vehicle Fires.....	124
6.3 - Shipboard Firefighting.....	125
6.4 - Fireboat Operations	125
6.5 - Chimney Fire.....	125

6.6 - Odor of smoke	126
6.7 - Fire Reported Out	126
6.8 - Residential or Commercial Fire Alarm or Smoke Detector	126
6.9 - Fire Investigator Request.....	126
7.0 – Wildland / Woods Fire / Outside Fire.....	127
7.1 – Chain Saw Use (Tree Removal / Brush Removal / Wildland / Outside Fire).....	127
8.0 - Electrical Hazards	127
8.1 - General	127
8.2 - Transformer or Downed Wire	127
8.3 - Residential and Commercial Electrical Service.....	127
8.4 - Ground Transformer, Substation, Switch Station, Vault and Manhole Fire	128
9.0 - EMS Calls	128
9.1 - Response.....	128
9.2 - Arrival	129
9.3 - Motor Vehicle Crash or Extrication.....	129
9.4 - Elevator/Escalator and Moving Walkways	129
ELEVATOR.....	129
ESCALATOR.....	129
10.0 - Technical Rescue.....	129
10.1 - Structural Collapse.....	130
10.2 - Confined Space	130
10.3 - Rope Rescue.....	130
10.4 - Trench Rescue	130
11.0 - Water Rescue and Recovery	131
12.0 - Hazardous Materials	131
12.1 – First-Due Company Actions.....	132
12.2 Atmospheric Monitoring.....	132
12.3 - Carbon Monoxide Emergencies.....	135
12.4 Natural Gas Emergencies	136
13.0 - Downed Aircraft.....	138
13.1 - Emergency Operations at Wilmington Airport (ILM)	138
13.1.1 – Three Levels of Alert.....	138

13.1.2 - Staging.....	138
13.2 - Landing Rotary Wing Aircraft	138
13.2.1 - General Procedures	138
13.2.2 - Establishing a Landing Zone.....	139
Appendix B: High-Rise Operations.....	140

Summary of Command Function #1: Deployment

Command Function #1 ensures the efficient, timely, and strategic deployment of resources during emergency incidents. The Incident Commander (IC) manages resource allocation, operational cycles, and accountability within the Incident Management System (IMS). Key components include dispatch, staging, assignments, work/rest cycles, and readiness for reassignment. The 911 Dispatch Center initiates resource deployment, using pre-determined packages to streamline operations and minimize radio traffic. Apparatus and personnel are staged in Levels 1 and 2 for effective positioning, with roles clearly defined for Engine, Truck, Rescue, Squad, and other units.

Emergency driving, scene accountability, and communication guidelines are strictly followed to ensure operational safety and efficiency. Assignments into hazard zones require specific task, location, and objective instructions, managed through the Passport Accountability System (PAS) and monitored at task, tactical, and strategic levels. Processes like on-deck operations, recycling, and rehabilitation support personnel safety and readiness, maintaining seamless transitions and resource availability throughout the incident. These standardized procedures enhance incident management, ensuring accountability, safety, and operational success.

Summary of Command Function #2: Assume and Confirm the Positioning of Command

Command Function #2 ensures establishing and maintaining a single, effective Incident Commander (IC) throughout an incident. Command is formally assumed during multi-unit responses via an Initial Radio Report (IRR), with the IC responsible for assessing the situation, developing an Incident Action Plan (IAP), and maintaining continuity of command until the incident is resolved or transferred. Naming command with a location-specific designation (e.g., "Market Street Command") standardizes communication and remains consistent throughout the incident.

Command positions adapt based on the incident's complexity. These include an Investigative Command for minor scenarios, a Fast-Attacking Command for offensive operations requiring the IC's direct involvement, and a Stationary Command for larger or defensive incidents, managed from a Command Post (CP). Transitioning command to a Chief Officer elevates operations to the strategic level, improving oversight, safety, and coordination. Transfers must occur on-site, and clear procedures must be followed to ensure efficiency and safety.

The Command Post is critical for managing large-scale incidents, offering a quiet, controlled environment with tools like tactical worksheets and data systems. For escalating scenarios, a larger CP vehicle or Command Team may be deployed, enhancing collaboration, resource management, and multi-channel communications. By leveraging these structured processes, Command Function #2 ensures effective leadership, strategic decision-making, and the safety of all responders.

Summary of Command Function #3: Situation Evaluation

Command Function #3 focuses on systematically evaluating critical factors through size-up, enabling the Incident Commander (IC) to develop effective strategies and Incident Action Plans (IAP). Size-up involves rapidly analyzing conditions to guide decision-making and ensure safety. The process relies on standardized evaluation of building type, life safety, fire conditions, resources, and special circumstances.

Essential tools include the Strategic Decision-Making Model, which emphasizes continual reassessment and adaptation, and information management from four primary sources: previous experience, visual observation, reconnaissance, and pre-incident planning. The IC prioritizes critical factors, distinguishing between fixed and variable elements while addressing unknowns and safety "red flags." Dynamic factors require ongoing evaluation to adjust strategies, manage resources, and meet tactical priorities like rescue, fire control, and property conservation. Continuous reevaluation ensures the IAP remains relevant and operational success is achieved.

Summary of Command Function #4: Strategy & Incident Action Planning

Command Function #4 emphasizes the Incident Commander's (IC) role in quickly assessing hazards and developing an Incident Action Plan (IAP) aligned with critical factors to ensure effective control of the incident. This process requires matching current conditions with appropriate actions to achieve standardized, safe, and efficient outcomes.

The IC uses a structured Strategic Decision-Making Model to evaluate and adapt strategies continuously. Operations are guided by a Risk Management Plan (RMP), which balances life safety, property conservation, and firefighter safety. Strategies are categorized as offensive (inside hazard zones) or defensive (outside hazard zones), and the strategy is clearly communicated in the Initial Radio Report (IRR).

The IC ensures operations align with the IAP through strategic organization, communications, and task assignments. Tactical priorities—such as fire control, life safety, and property conservation—serve as benchmarks for success. Effective water supply management, attack line deployment, and loss control measures support the overall strategy. The IC adapts to changing conditions, transitioning between strategies as needed, and ensures safety and accountability throughout the operation.

Summary of Command Function #5: Communication and Strategy Management

Command communications during emergency operations must be structured, concise, and purposeful to maintain control and safety. Describing fire conditions in the Initial Radio Report (IRR) involves using standardized terms such as "Nothing Showing," "Smoke Showing," "Working Fire," and "Defensive Fire." The location of the hazard, geographic landmarks, and division/floor terminology ensure clarity for responders.

The IC develops an Initial Incident Action Plan (IAP) that aligns tasks, locations, and objectives with tactical priorities. Strategies—offensive or defensive—are declared upfront to guide operations. Resource determination, command transfers, and structured follow-up reports keep the incident on track.

Key communication practices include CAN (Conditions, Actions, Needs) reporting for updates, status changes, and priority traffic for urgent issues like structural instability or rescue needs. Non-emergency traffic is minimized, with routine updates handled face-to-face whenever possible.

Emergency traffic is reserved for critical events requiring immediate action, with structured announcements and acknowledgment by dispatch. Proactively declared strategic shifts from offensive to defensive operations ensure all personnel safely exit the hazard zone with confirmed Personnel Accountability Reports (PAR).

These practices prioritize safety, situational awareness, and efficient management during dynamic incidents

Summary of Command Function #6: - Organization

Command Function #6 focuses on establishing a structured incident organization by using divisions, sectors, and groups (S/D/G) to decentralize tactical responsibilities. The incident is managed at three levels: Strategic (overall strategy and IAP by the IC at the Command Post), Tactical (supervised tasks in specific areas by S/D/G Officers), and Task (hands-on operations in the hazard zone).

Fast-attacking ICs manage initial strategies and tactical deployments, with command transfers to higher-level officers for escalating incidents. Subdividing the scene into geographic or functional areas (e.g., "Division Alpha" or "Ventilation Group") ensures accountability, safety, and operational efficiency. Supervisors continuously assess conditions, align operations with strategy, and report progress via CAN reports.

Effective tactical supervision includes maintaining resource balance, managing firefighter safety, and implementing the "Three-Deep Deployment Model" (working crews, on-deck crews, and tactical reserves). Defensive operations prioritize exposure protection, collapse zone safety, and efficient resource use. A strong Command structure supported by tools like mobile command units ensures streamlined communication and incident resolution.

Summary Command Function #7: Review, Evaluate, and Revise

Focuses on ensuring that the current strategy and Incident Action Plan (IAP) align with tactical needs and safety requirements, adapting dynamically to changing incident conditions. This function begins with a structured, standardized approach, where the IC performs the initial command functions to establish control and set a framework for operations. Using a strategic decision-making model, the IC continually evaluates critical factors, risks, and alignment between strategy and real-time conditions. Early implementation of command elements such as SOGs, risk assessments, and communication protocols provides a strong foundation for mid-incident adjustments. Through continuous updates from Condition, Action, Needs (CAN) reports, and visual size-ups, the IC monitors progress, identifies challenges, and ensures the strategy evolves effectively. Following a structured review checklist, the IC evaluates safety, resource adequacy, contingency planning, and the completion of tactical priorities. As conditions change, the IC adjusts the IAP, reinforcing or repositioning resources and transitioning strategies when necessary to maintain control and achieve incident goals efficiently.

Summary of Command Function #8: Continue Support & Terminate Command

Ensures the Incident Commander (IC) has sufficient resources and support to manage operations effectively, achieve tactical priorities, and protect hazard zone workers. As the incident progresses, the IC transitions from a fast-attack command to a stationary Command Post (CP), scaling the command structure with additional officers filling key roles like S/D/G Officers, Support Officers, and Senior Advisors. Command transfers occur systematically to maintain continuity, adapting to the incident's complexity and duration. Effective communication, resource allocation, and information sharing are critical to keeping the IAP current and aligned with real-time conditions. The IC forecasts the time and resources needed for each tactical priority and adjusts the command structure accordingly. As hazards are mitigated and priorities are completed, command de-escalates systematically. Post-incident activities focus on review, documentation, and responder well-being, ensuring lessons learned to inform future operations and safety protocols.

1.0 - Command Function #1: Deployment

The primary goal of Command Function #1 is to ensure the **effective deployment, management, and continuous supply of adequate resources** in a timely manner. This section outlines the standardized deployment process within the hazard zone management system.

1.1 - Company Status

Efficient deployment and management of responding units at the scene are critical components of the Incident Management System (IMS). When deployment is organized and orderly, resources become integral to the Incident Commander's (IC's) strategic plan.

The IC serves as the resource allocator, responsible for managing the operational cycles of all assigned resources at a strategic level.

Critical components of Deployment Management include:

- **Dispatch**
- **Standard Incident Response**
- **Staging**
- **Assignments** made by the IC
- **Accountability** of resources in the hazard zone
- **Work/Rest Cycles**
- **On-deck assignments** (resources staged for immediate deployment)
- **Recycling** (short-term recovery and readiness)
- **Rehabbing** (extended rest and recovery)
- **Readiness for Reassignment**
- **Returning companies to service**

The deployment system's objective is to allow the IC to execute resource assignments effectively according to the Incident Action Plan (IAP) while maintaining strategic accountability.

1.2 - Dispatch Center

The 911 Dispatch Center is critical in deploying the appropriate resources to emergency scenes immediately after receiving relevant information.

Dispatch Responsibilities

1. **Nature Code Determination:**
 - The call taker determines the appropriate Nature Code based on information provided by the caller.
2. **Resource Deployment:**

- The goal is to promptly send the correct resource(s) to address the emergency.

3. Pre-Determined Dispatch Packages:

- Additional resource requests from the IC should utilize pre-determined dispatch packages whenever possible. (EFD / EMD Response Plans)
- These packages reduce stress on the IC by streamlining the process of requesting additional resources and minimizing incident radio traffic.

Adhering to these procedures ensures that Command Function #1 deploys resources efficiently and effectively to meet the operational demands of any incident.

1.2.1 - Standard Structural Fire Dispatch Packages and Terminology

The Fire and EMS Response Plans (CAD Programming Worksheet) detail all specific response criteria. For comprehensive information, refer to these plans located in POWERDMS (EFD / EMD).

Key Terminology and Definitions

Automatic Aid

An agreement between departments to automatically provide specific equipment and personnel on the initial alarm, ensuring efficient and immediate assistance.

Move-Up/Fill-In

The deployment of apparatus to strategic standby locations to cover areas left open by resources committed to an emergency or taken out of service.

Command Post

The designated location where the Incident Commander (IC) manages the scene of an emergency.

Sector/Division/Group

Small, manageable command units are delegated to oversee and manage specific geographical areas or operational tasks.

Apparatus Definitions

Engine Company

A vehicle designed primarily for water delivery and firefighting operations, equipped with:

- A minimum 1,000 Gallons Per Minute (GPM) pump
- Hose lines
- A water tank with at least 500 gallons capacity

Reference: NFPA 1901 and ISO.

Minimum Staffing: Three (3) personnel except for ENG 1, which requires a minimum staffing of four (4) personnel.

Rescue Company

A vehicle specialized in performing auto extrication and rescue operations. It is not equipped for water delivery.

Reference: NFPA 1901 and ISO.

Minimum Staffing: Four (4) personnel.

Tanker/Tender

An apparatus designed for water transport from supply sites to emergency incidents.

Specifications: Minimum 1,500 gallons water capacity.

Minimum Staffing: One (1) person.

Truck Company

A vehicle focused on rescue, ventilation, aerial operations, ground ladders, and delivering large volumes of water from elevated positions.

Reference: NFPA 1901 and ISO.

Minimum Staffing: Three (3) personnel, except for Truck 1 and Truck 7, require a minimum staffing of four (4) personnel.

Squad

A support vehicle providing additional personnel at fire scenes without firefighting water delivery capabilities.

Minimum Staffing: Two (2) personnel.

Operational Components

Staging Area

A designated location near the emergency scene where additional equipment and personnel assemble.

- **Level 1 Staging:** Informal staging for first-arriving resources after initial 1st arriving Engine Company, Truck Company, and Battalion Chief
- **Level 2 Staging:** Formal staging for multiple alarms or complex incidents.
(See Sections 1.6.1 and 1.6.2 for further details.)

Elapsed Time Notification (ETN) – Watchdog

A system initiated during offensive working fires or high-risk incidents:

- The telecommunicator announces ETNs every 10 minutes over the Public Safety Channel.
- ETNs continue until the incident is declared under control or the Command requests adjustments to the notification process.

Incident Management and Coverage

Battalion Chiefs' Responsibilities

Battalion Chiefs must:

- Ensure critical areas are backfilled to maintain reasonable response times and core service delivery.
- Monitor staffing based on the department's Standard Operating Guidelines (SOG).
- Deploy mutual aid resources from surrounding agencies, if needed, for coverage.

Additionally, back-filled units may be redeployed to the working incident as conditions evolve.

This standardized structure ensures a consistent, effective response to structural fire incidents, maintaining safety and operational efficiency.

Dispatching Incidents

Primary Dispatch Protocols

All emergency incidents are dispatched on **Alpha 2 PURVIS**. Each incident is assigned a dedicated Public Safety (PS) channel distinct from **Alpha 2 PURVIS** and **Alpha 1 FIRE PRIMARY**.

- **Critical Hazard Zone Communications:** Incidents should never operate on a main dispatch channel where subsequent dispatches may interfere with hazard zone communications.

Unit Acknowledgment and Communication

Acknowledgment:

- Units should acknowledge their response using the Mobile Data Terminal (MDT) if operational or through the FREEDOM App on a smart device.
- If the Unit is out of the station, it must announce its responding location.

Radio Communication:

- After going en route via the MDT, units must maintain radio silence unless call-specific information must be shared.
- If the MDT is non-operational, units should:
 - Contact **Central** on **A1 Direct**, then switch to the PS channel.
 - This ensures that the first-arriving unit has a clear radio channel available for the Initial Radio Report (IRR).

Multi-Channel Operations

Certain incidents may require additional radio frequencies to support operational needs outside the hazard zone, such as:

- Level 1 & 2 Staging

- Rehab
- Safety
- Planning
- Logistics

Important: Each additional channel must have a dedicated person assigned to manage it continuously. The IC is responsible for only **one (1) PS fire ground frequency** during active hazard zone operations.

Telecommunicator Roles

The telecommunicator facilitates all communications between assigned units and the dispatch center on the incident's designated PS channel. **The following PS channels are monitored exclusively by telecommunicators:** For incident response codes not listed below, any additional communication with the telecommunicator must occur on **Alpha 1 FIRE PRIMARY**.

EFD / EMD Response Code	Incident Type
54	Confined Space/Structural Collapse
57	Explosion
58	Extrication/Entrapped
60	Gas Leak
61	Hazmat
62	High Angle
64	Marine Fire
69	Structure Fire
70	Train Collision/Derailment
72	Water Rescue
75	Train Fire
80	Outside Tank Fire
51	Aircraft Emergency
52 Charlie 1-4	High Hazard Alarms
77/29/131 Delta/Echo	Motor Vehicle Collision
82	Vegetation/Wildland/Brush/Grass Fire

Self-Dispatch Protocols

When units encounter an emergency while making standard, non-emergency apparatus movements, the following steps must be taken:

1. **Contact Dispatch Center:**
 - Use **Alpha 1 FIRE PRIMARY** to communicate

2. **Provide Information:**

- Nature of the incident
- Exact location of the incident
- Resources needed to mitigate the incident

3. **Assignment of Resources:**

- The telecommunicator may assign a separate PS frequency and dispatch additional resources as needed on **Alpha 2 PURVIS**.

This system ensures clear communication, resource allocation, and uninterrupted operations during emergency incidents

Adding Unit to a Dispatched Incident

In some instances, units may self-assign to a dispatched incident by notifying the telecommunicator through **Alpha 1 Fire Primary** or using the **MDT/Tablet**. Units adding themselves to an assignment must specify whether they are:

1. **Substitute for another unit (the telecommunicator will cancel the original dispatched unit).** *Remember that the other unit may have been dispatched because its AVL GPS Location was identified as closer to the address location.*
2. **Responding in addition to the original assignment.**

Units must allow the **Automatic Vehicle Locator (AVL)** system to function as intended and avoid canceling other units unless necessary and before any unit arrives on the scene.

Responding Units

- **Response Categories:**
 - The EFD / EMD response plans determine emergency or non-emergency responses.
- **Medical Calls:**
 - All Bravo, Charlie, Delta, or Echo-coded medical calls require an emergent response unless indicated in dispatch notes or by EMS.
 - Company Officer Discretion: Officers may respond emergently to a non-emergent dispatch based on the information provided.

Communication Guidelines

- **Inter-Unit Communication:**
 - Units may communicate with one another if radio traffic permits.
 - Factors like occupancy hazards, access, traffic conditions, and response routes should be shared to improve rescue and fire attack efforts.

- **Tactical Information Review:**
 - Company Officers should review available tactical information (MDT, tablet, map books, pre-fire planning data from EPR Response Mode) en route.
- **Monitoring Radio Traffic:**
 - Subsequent arriving units must monitor all radio communications on the assigned channel to stay informed based on reports from the first-arriving unit.
- **Critical Information Updates:**
 - Telecommunicators will relay critical updates or new information from subsequent callers via the assigned PS channel as soon as possible.

Response and General Scene Safety

A prompt and safe response must follow these standard practices:

Preparation for Response

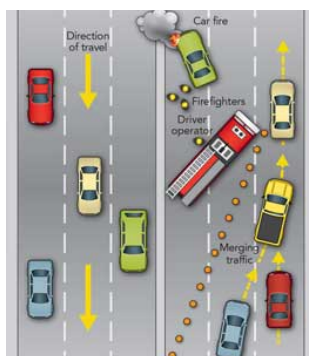
- All personnel must be ready to respond quickly to dispatched incidents
- Personnel must be appropriately attired and seated with seat belts fastened before the apparatus moves
- Radios must be set to the assigned PS channel
- Station doors must be fully open before departure

Emergency Driving Standards

- **Defensive Driving:** Always operate the vehicle professionally and defensively
- **Route Efficiency:** Engineers / Acting Engineers should know the most efficient and effective travel routes
- **Warning Devices:** Use lights, sirens, and air horns to navigate traffic safely and predictably
- **Intersection Management:** The Engineer / Acting Engineer and Officer must focus on safely managing intersections, which includes coming to a complete stop prior to proceeding safely through

Fire Ground and Scene Safety

- Engineers / Acting Engineers and Officers must exercise extreme caution when operating near or adjacent to the fire ground.
- Engineers / Acting Engineers must remain alert to the risk their vehicle poses to fire ground personnel and bystanders who may be distracted.
- Vehicles should be positioned to protect personnel working in the street. Warning lights and traffic cones should establish proper traffic flow around the scene.



- Personnel should not exit the vehicle until it comes to a complete stop and the surroundings are verified.

Lighting and Traffic Safety

- Use vehicle-mounted floodlights and other lighting to illuminate the scene at night.
- Personnel working near traffic lanes must wear approved high-visibility vests.

Apparatus Movement

- Avoid backing whenever possible. If unavoidable, spotters must be used per policy for large emergency apparatus.
- If no spotter is available, drivers must dismount and walk around the apparatus to check for obstructions before backing.

Safe Dismounting and Repositioning

- Personnel must look both ways and check their surroundings before stepping off the apparatus.
- When waiting for personnel to return to the truck, the driver must keep the apparatus stationary.

Accountability

- All members must immediately report observed unsafe driving practices.
- Following these guidelines ensures personnel and bystanders' safety and operations' effectiveness.

1.3 - Emergency Response Driving Procedures

Definitions

- **Non-Emergency:** Normal roadway driving, following all local traffic laws and regulations.
- **Emergency:** Driving in response to an emergency, utilizing sirens and warning lights.

Important Note: Using sirens and warning lights does not grant the emergency vehicle the right of way. These devices serve as a request for right-of-way, relying on other drivers' awareness and cooperation. Emergency vehicle operators must drive defensively, anticipating unexpected or inappropriate actions from others.

General Safety Procedures

1. **Seat Belt Use:**

- All personnel must always wear seat belts when operating or riding in a moving vehicle.
- The Company Officer must verify that all personnel are on board, adequately dressed, and secured with seat belts before the vehicle moves.

2. **Officer Responsibility:**

- The Officer in charge (or Engineer / Acting Engineer in single-occupant vehicles) is responsible for ensuring safe vehicle operations and compliance with this procedure.

3. **Speed Limits:**

- Emergency vehicles may exceed posted speed limits by up to **10 mph** only when responding to emergent and under favorable conditions:
 - Light traffic.
 - Good road conditions.
 - Clear visibility.
 - Dry pavement.
- Under unfavorable conditions (e.g., heavy traffic, poor visibility, wet/icy roads), the posted speed limit is the absolute maximum permissible speed.

Intersection Safety

Intersections pose the most significant risk for emergency vehicles. The following guidelines must be followed:

1. **Right-of-Way Intersections:**

- When approaching an intersection where the emergency vehicle has the right-of-way (e.g., green light), the Engineer / Acting Engineer must not exceed the posted speed limit.

2. **Controlled Intersections (Stop Sign or Traffic Light):**

- Emergency vehicles must slow down and be prepared to stop.
- Even with a green light, drivers must ensure the intersection is clear before proceeding.

3. **Negative Right-of-Way Intersections (Red Light or Stop Sign):**

- Emergency vehicles must:

- Significantly reduce speed.
- Come to a complete stop.
- Proceed only after confirming that all oncoming traffic in all lanes has yielded.

4. Due Regard for Safety:

- Engineers / Acting Engineers of authorized emergency vehicles must continuously operate with due regard for the safety of others.

Emergent Response Authorization

Emergency response is authorized only for legitimate emergency incidents. To minimize unnecessary emergent responses, the following rules apply:

- The first arriving unit on the scene must evaluate the situation and direct additional units to respond non-emergent when appropriate.

By adhering to these procedures, the Wilmington Fire Department ensures the safety of its personnel and the public and the effective response to emergencies.

1.4 - Establishing Command

Arrival and Scene Responsibilities

- 1st ENGINE Company, 1st TRUCK Company, Battalion Chief (BC)/Safety Officer, and TENDER (in non-hydrant areas) respond directly to the scene without going LEVEL 1
- 1st TRUCK Company:
 - Announces "*TRUCK # on the scene on the ____ SIDE*" unless they are the first arriving company assuming Incident Command (IC).
- **NO crew** arriving on the scene shall initiate tactical objectives until explicitly assigned by the first arriving Incident Command.
- **First Arriving Company Procedure:**
 - Clear the PS channel and contact 911 dispatch with:
 - "CENTRAL FROM [Unit ID]"
 - Followed by the Initial Radio Report (IRR).

Command Responsibilities

- **Command Declaration:**
 - Command must be formally established for all incidents where two (2) or more units are dispatched.

- Exemption: Standard medical incidents do not require formal Command declaration.
- **Assuming Command:**
 - The first unit or member to arrive at the scene of a multi-unit dispatched incident must assume Command by transmitting a standard IRR.
- **Communication:**
 - Once Command is established, all routine communication between dispatch and on-scene units must be directed through Command.

This structured process ensures clear communication, coordination, and safe operations during multi-unit incidents.

1.5 - Calling for Additional Resources

Alarm upgrades and requests for additional structural fire alarms should utilize pre-determined dispatch packages. These packages are designed to include the necessary command support for managing varying levels of resource demands effectively.

1.6 - Staging Procedures

The Incident Commander (IC) is responsible for allocating resources and managing their work cycles on a strategic level. Staging procedures ensure resources are positioned efficiently, allowing the IC to deploy them based on the Incident Action Plan (IAP). This method integrates multiple units into a cohesive operation.

1.6.1 - Level 1 Staging

Purpose of Level 1 Staging

Effective utilization of Level 1 Staging helps:

- Prevent excessive apparatus congestion at the scene.
- Provide the IC time to assess conditions before assigning units.
- Position apparatus in uncommitted locations close to the scene for effective deployment.
- Reduce radio traffic during critical initial stages.
- Facilitate fire ground accountability.

Activation of Level 1 Staging

Level 1 Staging is automatically activated when the Officer of the first arriving unit delivers their **Initial Radio Report (IRR)** and assumes Command. Subsequent units should:

- Stage uncommitted, approximately one block from the scene.
- Announce their Level 1 staging status on the assigned PS radio channel (e.g., "Engine 3, Level 1").

Guidelines for Apparatus in Level 1 Staging

- **Engine Companies:** Do not pass their last hydrants. This should be identified by the company officer while en route to the scene
- **Ladder/Truck Companies:** Do not pass their last access point to the incident site.
- Units must remain staged until assigned by the IC.

Special Situations

If a fast-attacking IC is unaware of a critical factor requiring immediate attention, a Company Officer may address the issue with deliberate action. This is rare and typically involves severe life safety concerns. **Units must notify the IC before entering the hazard zone.**

1.6.2 - Level 2 Staging

Definition and Purpose

Level 2 Staging is used for greater alarm assignments. It is a centralized location, adjacent to the incident scene, where later-arriving resources assemble. The staging area should be close enough for timely deployment but far enough to avoid incident hazards and congestion.

Radio Communication and Dispatch

- Greater alarm units responding to Level 2 Staging are dispatched on a **separate frequency** from the hazard zone.
- This allows the IC to focus on hazard zone operations without radio distractions.

Level 2 Staging Guidelines

1. **Designation of Staging Area:**
 - The IC designates the staging area and assigns a separate fire ground frequency for Level 2 Staging.
2. **Dispatch Notifications:**
 - The dispatch center notifies responding units of the staging area location and assigned fire ground frequency.

Reporting and Responsibilities

- Units arriving at Level 2 Staging report in person to the Staging Officer without using the radio.
- Crews remain intact with apparatus warning lights off until assigned.

Staging Officer Duties

If not pre-assigned, the first fire department Officer to arrive assumes the role of **Level 2 Staging Officer** and notifies Command. Responsibilities include:

- Verifying available units in staging.

- Maintaining a list of resources and assignments.
- Requesting additional resources when needed.
- Organizing apparatus for easy deployment.
- Relaying assignments and instructions to staged units.

Deployment from Level 2 Staging

- Units leaving staging communicate directly with Command or their assigned Division Officer.
- The Staging Officer ensures companies understand their tasks, location, objectives, reporting Division Officer, and operating frequency.

Chief Officer and Ladder/Truck Roles

- Additional Chief Officers in staging may be assigned tactical positions by the IC.
- Truck companies arriving first at Level 2 Staging will assume staging duties until relieved by an Engine or Staff Chief.

Apparatus Parking

- Apparatus must be parked to avoid congestion and allow for smooth ingress and egress.
- In-transit times should be communicated to the IC upon arrival at the assigned work location.

By adhering to these procedures, staging ensures efficient resource allocation, reduces congestion, and enhances overall incident management.

1.7 - Assigning Units into a Hazard Zone

Incident operations should focus on completing tactical priorities, and incident communications should align with this concept. When assigning a unit into the hazard zone, the Incident Commander (IC) should provide clear, structured instructions that include:

- **Tasks:** What needs to be done.
- **Location:** Where the tasks are to be performed.
- **Objectives:** The desired outcomes of the tasks.

A primary objective of the IC is to control the position/location and function of all resources operating in the hazard zone. Providing specific details about task location and objectives ensures clarity for the entire team, helping everyone understand where personnel are and what they are doing.

1.7.1 - Hazard Zone Accountability

Accountability is a shared responsibility across all levels of the incident organization. Each level must manage its accountability responsibilities, and no level can perform this duty on behalf of another.

1.7.2 - Company/Task-Level Accountability Responsibilities

Companies operating at the task level have the most significant accountability responsibilities, as they work directly inside the hazard zone. The effectiveness of the hazard zone management system is directly tied to the safe behaviors of personnel at this level.

Task-Level Responsibilities:

- Ensure proper assignment into the hazard zone.
- Use the Passport Accountability System correctly.
- Operate as a unified team, always staying together unless assigned to split crews
- Maintain an adequate air supply to exit the hazard zone safely.
- Limit structural depth based on conditions, experience, and air supply limitations.
- Avoid freelancing—strictly adhere to assignments by the IC.

Rules for Task-Level Operations:

1. The minimum crew size in the hazard zone is two firefighters with radio communications.
2. Crews must enter and exit the hazard zone together.
3. All personnel must maintain contact with their Company Officer through one of the following methods:
 - Voice (radio communication)
 - Vision (e.g., thermal imaging camera)
 - Touch (e.g., hose line)
4. Upon exiting the hazard zone, Company Officers must provide an accountability report to the IC or their assigned Division Officer.
5. Members assigned to operations outside the hazard zone are strictly prohibited from entering without explicit permission from their Company Officer.

Crew Splitting Guidelines:

- With IC approval, apparatus staffed with at least four crew members may be split into separate teams to perform distinct tasks.
- Split crews must adopt the following naming convention:
 - **Company Name + Assignment.**
 - Example: Rescue 2 splits into Rescue 2 Div 1 Pri Search and Rescue 2 Roof.
- Each split crew must include at least one ENGINEER or LT/Captain paired with a firefighter.

Passport Tag Placement:

- For companies with a minimum of four personnel, the **Passport Accountability Tags** will be placed as follows:
 - Team 1 tag: upright.
 - Team 2 tag: upside down.

Partner Requirement:

- No member shall operate alone in the hazard zone. All personnel must always work with a partner.

By adhering to these guidelines, units can ensure safe, effective, and accountable operations within hazard zones, contributing to the overall success of the incident management system.

1.7.3 - Tactical Level Accountability Responsibilities

When two (2) or more units are assigned to a specific geographical area, the IC should consider appointing a Tactical Level Supervisor.

At the tactical level, the hazard zone is managed by Sector/Division/Group (S/D/G) Supervisors. The Officer in charge of the area is responsible for overseeing the assigned companies. Initially, this role is often assigned to the first Company Officer in the area. As complexity and risk increase, a Command Level Officer should replace the Company Officer as the Division Supervisor.

Fireground Terminology for Tactical Areas:

- **ALPHA, BRAVO, CHARLIE, DELTA:** Designated for sector operations based on geographic locations.
- **DIVISION #:** Designated for operational areas based on floors or levels (e.g., Division 1 for the first floor).

Responsibilities of a Tactical S/D/G Supervisor:

- Ensure the Division Plan aligns with the IC's Plan.
- Conduct risk management within the division.
- Complete tactical priorities for the division.
- Ensure positions and actions match current conditions in the division.
- Implement and manage the Division IAP.
- Coordinate with other S/D/G Supervisors as necessary.
- Manage the Passport Accountability System (PAS) within the division.
- Assist with air management for teams in the hazard zone.
- Oversee work-rest cycles for personnel in the division.

- Manage On-Deck crews, recycling, and rehab activities.

1.7.4 - Strategic Level Accountability Responsibilities

At the strategic level, the IC manages accountability through command and control by:

- Assigning resources to specific tasks and locations.
- Tracking the whereabouts of all resources within the hazard zone.
- Maintaining an accurate tactical worksheet.
- Receiving regular CAN reports (Conditions, Actions, Needs) from key tactical areas.

The IC builds an effective incident organization by assigning Division responsibilities to Company or Command Officers who physically position themselves in the designated area. This forward placement ensures strong supervision, enhances safety, and improves operational efficiency.

Unit accountability must be maintained throughout the incident. The IC must know the status, location, and tasks of each company operating in the hazard zone. This can be achieved through:

- Direct communication with individual companies.
- Delegation to S/D/G Supervisors responsible for their assigned area.

1.7.5 - Tactical Worksheets

The IC uses tactical worksheets to track resources and their operational status. Tactical worksheets help manage:

- Responders assigned to the incident.
- Tasks in progress and tasks yet to be completed.
- Overall personnel safety.

These worksheets are vital for managing incident complexity and ensuring accountability.

1.7.6 - PARs and Roll Calls

Personnel Accountability Report (PAR):

- A PAR confirms that all personnel assigned to a crew or multiple crews within a geographic area of the hazard zone are accounted for and have sufficient air supply to exit safely.
- PARs should be conducted face-to-face within the Division or Company and transmitted as one unified report when possible.

Roll Call:

- A roll call is an accountability check for all personnel in the hazard zone. It is conducted by Company Officers or Division Supervisors and relayed to the IC.

Steps for Roll Call:

1. Personnel notify their Company Officer of their condition and location.
2. Company Officers notify their Division Supervisor of personnel status.
3. Division Supervisors account for all personnel under their command and report to the IC.
4. The IC transmits a final PAR to the dispatch center for the entire incident.

When to Conduct a Roll Call

Roll Calls should be performed in the following circumstances:

- When incident conditions are initially controlled (e.g., fire knockdown).
- Transitioning from offensive to defensive operations.

Additional situations requiring roll calls:

- Missing or unaccounted-for personnel.
- Sudden or unexpected hazard zone events.
- A Mayday situation, depending on the circumstances.
- At the IC's discretion, if deemed necessary.

By maintaining clear accountability and utilizing PARs, roll calls, and tactical worksheets, the IC and Tactical Level Supervisors can ensure a safe and effective response during incident operations.

Passport Accountability System (PAS)

The Passport Accountability System (PAS) is designed to enhance firefighter safety and provide the IC and Sector/Division/Group (S/D/G) Officers with a reliable method to track the location and function of all personnel operating in a hazard zone.

Definition of Hazard Zone:

A hazard zone is any area requiring a Self-Contained Breathing Apparatus (SCBA).

Accountability Hardware

Each piece of apparatus is equipped with the following accountability hardware:

- **Company Passport:** Holds crew members' name tags and identifies personnel assigned to the apparatus.
- **Division Management/Accountability Board/CREWSENSE Roster:** Carried by all Response Chiefs for tracking resources and operations within their division.

Passports:

- Color-coded tags (approximately 2x4 inches) permanently marked with the company ID.
- Crew members' name tags are attached to the passport.

Storage:

- The main Company Passport is kept on the apparatus dashboard at the Company Officer's position (passenger side) using a Velcro strip for easy removal.
- Each firefighter is issued two individual name tags, one of which is affixed to the passport. Extra name tags should be stored under the firefighter's helmet.

Passport Application and Use

1. Company Officer Responsibility:

- Ensure the passport reflects only the personnel currently assigned to the company.
- List personnel in the following order on the passport:
 - Company Officer (top)
 - Engineer (upside-down)
 - Firefighters
- For companies with a minimum of four personnel who are assigned to split crews on the scene:
 - Team 1 tags are upright.
 - Team 2 tags are upside-down.

2. Implementation:

- The PAS is implemented at any incident requiring the use of SCBAs.
- The accountability system begins with the first arriving unit, which provides an Initial Radio Report (IRR) and assumes Command.

3. Accountability Process:

- Passports are placed on the driver's seat panel or delivered to the Command Post (CP) as supervision is upgraded to S/D/G Officers.
- Crews exiting the hazard zone must retrieve their passports and notify their S/D/G Officer if exiting from a different location.

Tactical Level Passport Accountability

When a Command Officer assumes S/D/G responsibilities, it elevates Division management to a tactical level, enhancing accountability and firefighter safety.

1. S/D/G Officer Role:

- Fully equipped and positioned at the entry point to their assigned area.
- Retrieve accountability boards from the initial accountability engine or CP.
- Manage the Division Air Management and work-rest cycles for assigned units.

2. Crews Reporting to S/D/G Officer:

- Deliver their passport to the S/D/G Officer face-to-face.
- Await further assignment while maintaining crew integrity.

3. Air Management and Crew Welfare:

- Both S/D/G and Company Officers monitor air supply and crew condition.
- Crews exiting the hazard zone conduct face-to-face debriefs with the S/D/G Officer, discussing crew condition and next steps (recycling or rehab).

4. Recycling vs. Rehab:

- Recycling: The unit retains its assignment, and the passport remains with the S/D/G Officer.
- Rehab: The S/D/G Officer returns the passport to the unit, notifies Command of the status change, and requests a replacement unit if needed.

Terminating the Passport System

The PAS remains active for the duration of the incident. Accountability ends when the last passport is returned to the last company exiting the hazard zone. Upon termination:

- Passports must be verified for accuracy.
- Passports are returned to the apparatus dashboard.

General Passport Guidelines

- **Before Entry:** Passports must be delivered to the designated accountability location in the warm zone.
- **Personnel Reflected:** Passports display only the names of personnel entering the hazard zone. The driver/operator is listed upside-down if remaining outside the hazard zone.
- **Point of Entry:** Passports are maintained at the entry point, typically with the first engine deploying hose lines.
- **Exiting Crews:** Crews retrieve their passports upon exiting the hazard zone.
- **S/D/G Management:** Once supervision is upgraded to a Command Officer, the S/D/G Officer responsible for that work location manages all passports.

The PAS ensures accountability, enhances safety, and streamlines operations during hazard zone incidents.

Managing the Work/Rest Cycle

Members are totally dependent on the air they bring with them into the hazard zone. We must base our operations around the realistic working times of our SCBAs. Company Officers must maintain an awareness of their crew's air levels, and the decision to exit the hazard zone must be governed by maintaining an adequate air reserve to deal with any sudden or unplanned events while exiting.

IC's, S/D/G, and Company Officers must agree to realistic SCBA work times in the hazard zone. These work times must give the workers a margin of safety in case something goes wrong while exiting. Company Officers must manage this on the task level and keep the IC or Division Officer informed of their air supply and projected work times.

Company Officers must base their decision to exit the hazard zone on their air supply. This decision cannot be based on being relieved, or if problems still exist in their work area. S/D/G Officers need to use the accountability system hardware tools to assist them in managing their assigned company's work/rest cycle, air supply, and accountability.

S/D/G Officers assisting assigned Units with their air management times in no way take away or diminish the Company Officer's responsibility for managing his/her crew's air supply.

The 3-Deep Deployment Model

The IC should strive to provide a steady, adequate stream of resources. Three deep is where an IC has a steady stream of on-scene crews for the required tasks based on the incident's critical factors.

The 3-deep Deployment process starts with the initial arriving workers assigned to and working in the hazard zone—the first layer.

After these critical tactical positions have been covered, subsequent arriving units should be assigned to on-deck positions (described shortly) at the initially arriving units' already utilized entry points. This gives the IC a rapidly assignable resource and support in the form of On-Deck companies - the second layer.

Once all the critical tactical areas are adequately backed up with On-Deck Units, subsequent arriving Units will either be in the Level 1 or 2 Stage. These staged Units now give the IC the tactical reserve needed to replace companies or backfill any companies addressing a sudden incident problem.

This model gives you "3-Deep" crews working in the hazard zone, crews ready to work right outside the hazard zone, and replacement crews waiting for an assignment in staged positions.

This involves the IC first requesting/acquiring and then effectively and proactively assigning later arriving Units to On-Deck positions while keeping a tactical reserve in staged positions.

In Transit

"In Transit" is the time it takes a company to reach its assigned work area after receiving an order.

It often varies due to:

- Distance between staging and the incident.
- Size of the incident perimeter.
- Amount of equipment the company needs to assemble.

The IC or Division Officer will lose direct accountability for these companies while they're In Transit. The Company Officer is responsible for monitoring the PS radio channel while In Transit. For long in-transit times (over 5 minutes or more), upon arrival to the assigned work area, the Company Officer should provide a radio announcement to the IC that the company is intact and in the assigned work area.

On-Deck Operations

Definition:

On-Deck is a forward staging position located just outside the immediate hazard zone, as assigned by the IC to the ALPHA, BRAVO, CHARLIE, or DELTA side. It is safely positioned near the entrance of a tactical area.

Purpose and Function

Once assigned to an On-Deck position, the crew serves as a Rapid Intervention Team (RIT) unless or until:

- They are assigned to a tactical position within the hazard zone.
- A dedicated Rapid Intervention Team (RIT) is established.

Assigning a crew to an On-Deck position satisfies **OSHA 1910.134** requirements for "2-in/2-out" compliance. (Refer to pg. 107, Appendix A, of the "Tactical Guidelines" for more details on this requirement.)

Supervision:

- On-Deck crews are supervised by the **S/D/G Officer** or their **Company Officer**.
- They remain On-Deck until the IC or the S/D/G Officer gives a specific assignment.

On-Deck Assignments

The most common assignments for On-Deck companies include:

- **Deploying as a RIT** when needed – Full RIT Tool Compliment should be retrieved and placed in the ON DECK Area ready for deployment
- **Reinforcing a position** within their assigned S/D/G.
- **Crew relief** for a unit within the assigned S/D/G.
- Other tactical tasks as assigned by the IC.

Proactive Resource Management

Once units are deployed to critical S/D/G areas around the scene, the IC must proactively allocate resources by assigning additional resources as On-Deck crews to those areas.

Benefits:

- Layering On-Deck crews around the fireground creates tactical reserves.
- Supports the management of standard work cycles.
- Prepares for unexpected or escalating incident conditions.

Assigning On-Deck Crews:

ICs assign On-Deck crews by contacting staged companies and giving clear instructions.

For example:

- *"ENGINE 5 from Command: Go On-Deck on the Charlie side of the structure."*

Crew Requirements for On-Deck Assignment

1. Apparatus Positioning:

- Park apparatus out of the way to avoid obstructing access to the scene.

2. Crew Preparation:

- Remain intact with full PPE.
- Gather all necessary tools and equipment, including:
 - WFD RIT bag
 - Full RIT Tool Cache
 - Spare air cylinders

3. Arrival and Communication:

- Report to the assigned location and contact the IC or S/D/G Officer with a readiness update.
 - Example: *" Engine 5 On-Deck on ALPHA "*

Responsibilities of On-Deck Crews

• Stay Intact and Ready:

- Maintain a ready state with the entire crew intact.
- Always monitor the assigned PS channel.
- Secondary Size-up to identify areas needed to soften the structure
- Identify needs for additional egress/ground ladders from DIV 2 or higher

• Area Size-Up:

- Identify entrance/exit points in the assigned area.
- Assess interior and exterior conditions.
- Note the Unit IDs of crews operating inside the structure.
- Approximate the locations of interior crews.
- Determine which crews are operating specific hose lines.

Relief Operations

When an On-Deck crew is used as a relief crew, the Company Officer must conduct a face-to-face handoff with the exiting Officer.

Information to Exchange:

- Interior conditions.
- Routing instructions to the work area.
- Interior obstructions.
- Additional tools or resources required.
- Current objectives being worked on.

Following these guidelines, On-Deck crews ensure a seamless transition into tactical roles, enhance safety and maintain operational efficiency throughout the incident.

Company Recycling and Rehab Guidelines

Company Recycling

Companies operating within a Sector/Division/Group (S/D/G) will require regular air and fluid replenishment during operations. At large-scale incidents, the Incident Commander (IC) should establish at least one (1) Rehab location. Typically, crews assigned to Rehab are placed back in service after rehabilitation. However, the distance between the work area and Rehab can lead to challenges, including:

- **Loss of direct accountability** for companies in transit to Rehab.
- **Delays in reassembling and reassigning crews** from Rehab.

To address these issues, Recycling provides an efficient method for air replacement and rehydration while keeping crews within their assigned S/D/G. Depending on conditions, a company's work cycle may last for a single air cylinder or extend to 2–3 cylinders. To maintain operational continuity, crews exiting their S/D/G should promptly recycle themselves. During Recycling, companies will:

1. Remain in their assigned S/D/G.
2. Refill their air supply.
3. Rehydrate.
4. Report readiness to their S/D/G Officer or the IC to resume work.

Support for Recycling: Command Officers may assign mobile air/lighting units (e.g., Mobile Air 1) to specific geographic divisions to expedite Recycling. Mobile Air 1 will be automatically dispatched for all 2nd alarm or higher responses, ensuring efficient on-scene air replenishment.

Company Officer Responsibilities:

- Anticipate work duration within the S/D/G and bring spare air cylinders if necessary.
- Coordinate with the Division Officer to request additional resources for replacing On-Deck crews or assigning recycled crews to vacated On-Deck positions.

Division Officer Responsibilities:

- Monitor personnel welfare to determine if Recycling or formal Rehab is more appropriate.
- Ensure steady resource availability within the S/D/G.

Rehab

At incidents requiring extended operations, the IC must establish at least one (1) Rehab location for air and fluid replenishment.

Rehab Setup and Coordination:

- The Rehab Unit will notify the Command Post (CP) upon arrival near the scene.
- The IC will designate a setup location for Rehab.
- Units assigned to Rehab must report face-to-face with the Rehab Officer, delivering their company passport.

Rehab Operations:

- Crews in Rehab will typically be placed back in service after rehabilitation. The Rehab Officer will:
 - Confirm with the IC that the company is ready to return to service.
 - Return the company passport as they leave Rehab.

Reassignment from Rehab: If a company is reassigned to an active S/D/G, the Rehab Officer will function as a Level 2 Staging Officer, providing the following information upon returning the passport:

1. Assigned tasks, locations, and objectives.
2. The specific area or Division Officer to report to.
3. The Public Safety (PS) channel for operations.

The Recycling and Rehab processes support the safety and efficiency of fire ground operations by ensuring clear accountability and streamlined communication.

2.0 - Command Function #2: Assume and Confirm the Positioning of Command

Major Goal:

Establish and maintain a single Incident Commander (IC) in the most effective command position for the duration of the hazard zone.

The assumption of Command is a routine and expected organizational practice. Command Function #2 establishes a standardized process for initiating Command and upgrading the IC to the most effective position based on incident conditions.

2.1 - Establishing Command

Command must be formally declared for all incidents involving **two (2) or more dispatched units**.

Exceptions:

Command does not need to be formally assumed for responses that will not escalate beyond the commitment of one or two units. In these cases, the first-arriving Unit or Officer manages the incident. Examples include:

- Single Unit responses.
- Single company investigations.
- EMS calls requiring only one (1) fire department unit.

Process for Multi-Unit Incidents:

1. The first Unit arriving on the scene of a multi-unit dispatch **must assume Command** by transmitting a **standard Initial Radio Report (IRR)** as outlined in Command Function 5—Communications.
2. **Command Confirmation:**
 - The 911 telecommunicator confirms the IRR by repeating it to all responding units using the Order Model.
 - If the telecommunicator does not acknowledge, the IC should repeat the IRR to ensure clarity.
3. **Responsibilities of the Initial IC (IC #1):**
 - Perform a size-up of the situation.
 - Determine the overall strategy for managing the incident.
 - Develop an initial Incident Action Plan (IAP).
 - Communicate the IAP to all participants via the IRR.

Role of Subsequent Units:

When later-arriving Units report to the incident, they are assigned roles based on the IAP created by the IC. This ensures all responders are aligned with the identified problem and the planned actions to address it.

Key Outcomes:

- Calm and clear communication.
- Quick, effective, and coordinated action.
- Elimination of wasted effort during the critical initial minutes.

Command Management and Continuity:

- Once command is established, all routine communication between the telecommunicator and the incident scene will be routed through the IC.
- The initial IC will remain in Command until:
 - **Command is formally transferred** to another IC, or
 - **The incident is stabilized, and the Command is terminated.**

A **formal IC** must always be in place, actively performing Command functions, whenever a hazard zone exists.

2.2 - Naming Command: Radio Designation

The radio designation "**COMMAND**" must include the significant crossroad or specific occupancy name of the incident site, such as "*Market Street Command*" or "*Murchison Command*." This designation remains unchanged throughout the incident.

The designation of "Command" will stay with the Incident Commander (IC) until the incident is concluded.

2.3 - Command Positioning

The IC's positioning is critical in effectively managing the incident scene. Typically, the first arriving Engine Company Officer assumes the role of the initial IC, referred to as **IC #1**.

There are three primary Command Positions that a Company Officer may adopt based on the circumstances:

1. **Investigative Command Position**
2. **Fast-Attacking Command Position** (inside the hazard zone)
3. **Stationary Command Position** (located at a Command Post, CP)

2.4 - Investigative Command Position ("Nothing Showing")

In the **Investigative Command Position**, the IC operates as a mobile commander using a portable radio to evaluate the scene and identify the incident problem. The Company Officer stays with their crew to investigate while maintaining Command.

Key responsibilities for this position include:

- Continuously assessing conditions.
- Communicating with inbound companies to determine whether to continue their emergency response or downgrade to a non-emergent response.

2.5 - Fast-Attacking Command Position

The **Fast-Attacking Command Position** allows the IC to directly supervise and assist their crew during the critical early stages of the incident, particularly in offensive strategies. This approach combines command and action, with the IC operating inside the hazard zone using a portable radio.

Advantages:

- Enhances crew safety and accountability.
- Provides firsthand evaluation of interior conditions for informed decision-making.
- Ensures prioritization of primary searches.
- Can often stabilize incidents quickly.

Disadvantages:

- Balancing command and action duties can be challenging.
- PPE and the hazard zone environment hinder communication.
- Limited situational awareness and strategic span of control.

Appropriate Situations for Fast-Attacking Command:

- Visible, offensive working fires.
- Critical life safety situations.
- Incidents requiring immediate intervention for firefighter safety.
- Scenarios where further investigation by the Company Officer is necessary.
- Incidents where the crew's experience level supports rapid action.

Transitioning Out of a Fast-Attacking Command Position:

The IC must transition out of the Fast-Attacking position when:

1. The situation becomes stabilized.
2. Command is transferred to a later-arriving officer (IC #2).

2.5.1 - Company Officer ICs

Operational Levels in the Hazard Zone:

1. **Strategic Level** - Oversees overall incident management.

2. **Tactical Level** - Coordinates efforts within specific operational areas.
3. **Task Level** - Executes specific objectives and assignments.

Responsibilities of the Initial Company Officer IC:

- Manage all three operational levels during the early stages of the incident.
- Conduct a size-up, declare the strategy, and formally assume Command.
- Maintain control of the Strategic Level until Command is transferred or the incident concludes.

Tactical Responsibilities:

- Develop and execute an Incident Action Plan (IAP) based on critical factors.
- Directly supervise and assist crew members in resolving hazards.
- Assign additional arriving companies to support the initial IAP.

Upgrading Command and Operational Levels:

1. Strategic Level Upgrade:

- The first arriving Command Officer (IC #2) transfers Command from the Fast-Attacking IC (IC #1), assuming responsibility for strategic operations.

2. Establishing a Command Post (CP):

- A stationary CP allows the IC to effectively manage the incident (e.g., operating from a Battalion Car).
- This ensures tactical priorities are met and firefighter safety is maintained.

Company Officer IC Role Summary:

- For offensive strategies, a Company Officer IC typically operates in a **Fast-Attacking Command Position**.
- If a Chief Officer is the first to arrive, they assume the **Command Position** and operate at the strategic level.
- Chief Officers should only operate in the **Command Position** when acting as the IC.

Following these guidelines, Fast-Attacking and Stationary Command Positions work cohesively to ensure effective incident management and firefighter safety.

2.6 - Command Position: Company Officer

The **Command Position** is a stationary role located outside the hazard zone, ideally within a Command Post (CP) vehicle. Operating from a CP provides the optimal environment for managing incidents effectively.

When to Assume a Stationary Command Position

Some incidents, due to their size, complexity, or potential for rapid escalation, require an early, stationary Command structure. In these cases, the first arriving Company Officer (IC #1) will:

1. **Assume Command** immediately upon arrival.
2. **Position outside the hazard zone** in a stationary CP.
3. **Retain Command** until the incident is stabilized or transferred to another officer.

Examples of incidents requiring a stationary Command Position include large-scale or defensive fires where strategic coordination is critical.

Options for Crew Assignments When IC Assumes a Fixed Command Position

If the Company Officer assumes a stationary Command Position, the remaining crew members must be reassigned to maintain operational effectiveness. Options include:

1. **Move-Up an Acting Officer:**
 - Designate an experienced crew member as Acting Officer.
 - The decision should be based on the crew member's skills and experience.
2. **Assign Crew Members to Staff Functions:**
 - Crew members assist the IC with tasks such as:
 - Conducting reconnaissance and reporting.
 - Supporting incident communications.
 - Tracking resources and assignments on the tactical worksheet.
3. **Reassign Crew Members to Another Company:**
 - Assign the remaining crew members to another operating company within the hazard zone.
 - This reassignment must be acknowledged by:
 - Both the original and receiving officers.
 - Including reassigned personnel in the accountability system.

Passing Command

Command must only be transferred to an officer who is physically present at the scene.

- Passing Command to an officer en route creates gaps in incident management and compromises safety.
- Command transfers should only occur when the new IC is on-site and ready to assume responsibility.

By maintaining a stationary Command Position and appropriately reassigning crew members, Company Officers ensure effective incident management and operational efficiency.

2.7 - Command Position: Chief Officer

The **stationary Command Post (CP)** enables Chief Officers to manage ongoing operations strategically and prepare for escalation effectively. Operating from a fixed Command Position strengthens the IC's ability to:

- Execute the Functions of Command.
- Achieve tactical objectives.
- Ensure personnel safety throughout the incident.

Upgrading Command Capacity

When Command transfers from a Company Officer in the hazard zone to a Chief Officer in a stationary CP, the Command structure is elevated to a strategic level.

Key benefits include:

- Enhanced ability to manage all eight (8) Functions of Command.
- Improved oversight of safety and operational effectiveness.
- Better coordination of resources and tactical priorities.

Best Practices for Chief Officers

To ensure a seamless Command transfer, Chief Officers should:

1. **Reference Pre-Plan Information:**
 - Use tools like Mobile Data Terminals (MDTs) for pre-plans, aerial views, and hydrant locations.
2. **Monitor Radio Traffic:**
 - Gain situational awareness by listening to ongoing communications.

Initial-Arriving Chief Officer

If a Chief Officer is the first to arrive, they should immediately assume the Command Position and operate strategically.

Note: Chief Officers must only operate in the Command Position if they are the designated Incident Commander (IC).

2.8 - Transferring Command

Effective Command relies on proper positioning. Rapid establishment of a stationary, remote IC at a CP enhances control and decision-making capabilities.

The Importance of a Stationary Command Position

A fixed CP allows the IC to:

- Monitor conditions in real time.
- Issue clear orders and adjust to dynamic factors.
- Maintain constant communication and ensure responder safety.

Process for Transferring Command

When a Chief Officer arrives and observes active operations, Command should be transferred and upgraded.

Steps for Transferring Command:

1. **Conduct a Size-Up:**
 - Verify that assignments align with current conditions.
2. **Announce On-Scene Arrival:**
 - Transmit arrival to the scene (e.g., "Battalion 2 On-Scene").
3. **Verify Resources:**
 - Confirm operating positions and tasks with IC #1 and request a CAN report.
4. **Initiate Command Transfer:**
 - Notify IC #1 of the transfer (e.g., "I'll take it from here.").
5. **Confirm with Dispatch:**
 - Inform PS 911 Dispatch of the Command transfer, current strategy, and resource needs.

Best Practices for Command Transfer

- **Keep it Clear:**
 - IC #1 should provide concise updates, including an IRR, assignments, and condition reports.
- **Only Transfer to Improve Command:**
 - Command should transfer only if it enhances operational effectiveness.

Prohibited Practices:

- **Do Not Pass Command to Off-Site Units:**
 - Command must transfer only to an officer physically present on the scene.

Simultaneous Arrival of Chief Officers and Companies

If a Chief Officer and Company arrive simultaneously, the Chief Officer should immediately assume Command to provide strategic oversight.

By following these guidelines, Command transfers enhance efficiency, safety, and operational success during complex incidents.

2.9 - Packaging Command for Ongoing Operation and Escalation

Once the IC assumes a stationary **Command Position**, they can effectively utilize the standardized elements of the Incident Management System (IMS) to control and manage operations. The IC primarily focuses on placing and directing crews to ensure their tasks align with current incident conditions.

Advantages of a Stationary Command Position

Operating from a stationary **Command Post (CP)** inside a vehicle provides the IC with a controlled environment to manage the incident effectively. Key benefits include:

- **Focused Environment:**
 - A quiet and remote setting allows for uninterrupted decision-making.
- **Enhanced Communication:**
 - Access to multiple radio channels facilitates clear, comprehensive communication.
- **Documentation and Planning:**
 - A dedicated workspace to track resources, assignments, and progress using tactical worksheets.
- **Environmental Protection:**
 - Shelter from weather conditions ensures uninterrupted focus on operations.
- **Access to Resources:**
 - Tools such as Mobile Data Terminals (MDTs), pre-plans, and reference guides support strategic decision-making.

By leveraging these advantages, the IC can maintain strategic oversight, manage resources efficiently, and adapt to evolving incident conditions.

2.10 - Upgrading the Command Post (CP)

For escalating or large-scale incidents, the Chief Officer's CP (typically a vehicle) may reach its operational capacity by the time of a 2nd Alarm. Upgrading to a larger, more comprehensive CP vehicle becomes essential at this stage.

Options for Upgrading the CP

- **Larger Command Vehicles:**
 - Deploy resources such as a Command Vehicle (CV) from the Wilmington Police Department (WPD) or other agencies to the scene.
- **Enhanced Capabilities:**
 - Larger CP vehicles provide additional space and resources for communication, planning, and coordination during complex or prolonged incidents.

Upgrading the CP ensures seamless management of escalating operations, maintains situational awareness and enhances resource coordination.

2.11 - Command Teams

A command team should be established promptly for complex incidents requiring substantial resources. Command Teams are essential for managing a rapid influx of resources and maintaining control over large-scale operations.

Deploying a **Command Vehicle (CV)** as a centralized hub offers numerous benefits for operational management.

Advantages of a Command Vehicle (CV)

- **Enhanced Collaboration:**
 - Space for key Command Partners such as:
 - Safety Officer (SO).
 - Senior Advisor (SA).
 - Section and Branch Supervisors.
- **Radio Channel Management:**
 - Enables simultaneous monitoring and coordination across multiple radio channels.
- **Focused Command:**
 - Allows the IC to concentrate solely on managing the hazard zone.
- **Access to Critical Resources:**
 - Equipped with tools like:
 - Data reports and video feeds.
 - Communication systems (radios, phones).
 - Weather monitoring tools.
 - Incident reference materials.

Role of a CV in Incident Management

A Command Vehicle is specifically designed for large-scale operations and provides:

- Increased space for Command Team members.
- Additional communication tools.
- Specialized resources for strategic and tactical decision-making.

Deployment of Command Vehicles

- A CV should be dispatched to all multiple-alarm incidents to enhance command capabilities.
- Supporting an IC from a larger CV is further outlined in **Function 8: Continue, Support, and Terminate Command**.

By utilizing Command Teams and leveraging Command Vehicles, incident operations are managed more effectively, ensuring operational success and responder safety.

3.0 - Command Function #3: Situation Evaluation

The primary goal of Command Function #3 is to implement a **standardized approach to Size-Up** that uses consistent information-gathering methods to evaluate critical factors at the incident.

Purpose of Size-Up

Size-up involves systematically and rapidly analyzing critical factors at an incident to:

- Develop a rational incident strategy.
- Create an Incident Action Plan (IAP) based on current conditions.
- Drive decision-making with accurate and relevant information.

A consistent Size-Up process is the foundation of effective Command and operational success.

3.1 - Matching Standard Conditions to Standard Actions

Critical Factors represent the incident's conditions and must be identified before any actions are taken.

- **Initial Size-Up:**
 - Collect critical information to shape the strategy and IAP.
 - Ensures decisions are grounded, and safety is prioritized.

The systematic evaluation of critical factors ensures standardized, safe, and well-managed incident outcomes.

3.2 - Strategic Decision-Making Model

The **Strategic Decision-Making Model** provides a structured framework for evaluating and acting consistently during emergency operations.

Model Process:

1. **Identify Critical Factors:**

- Determine the key elements impacting the incident.

2. **Base Actions on Evaluation:**

- Develop strategies and actions directly informed by the assessment.

3. **Continual Evaluation:**

- Reassess critical factors throughout the incident to ensure the plan remains relevant and personnel stay safe.

This model eliminates uncertainty and promotes deliberate, systematic, and adaptive decision-making.

Following this process, Command can ensure safe, efficient, and predictable outcomes in every incident.

3.3 - Information Management

Information management is one of the most complex challenges during active incident operations. Critical information must be:

- **Quickly received.**
- **Accurately processed.**
- **Interpreted and acted upon.**

Certain factors can be observed directly from the Command Post (CP), while others require assessment from various locations inside or outside the structure or incident area.

Effective information management requires the IC to develop and consistently apply a standardized incident intelligence gathering and processing system during live operations.

Four Primary Forms of Information

The IC utilizes a combination of the following four primary information sources to manage and process incident intelligence:

1. **Previous Experience**
2. **Visual Observation**
3. **Reported Information/Reconnaissance**
4. **Pre-Incident Planning and Familiarity**

3.3.1 - Previous Experience

Experience plays a critical role in decision-making. Over time, responders build a mental "library" of situations they've encountered. A seasoned IC can:

- Relate past experiences to current conditions.
- Anticipate the likely progression of the incident.

These memory-based insights allow for quicker, more accurate evaluations and decisions.

3.3.2 - Visual Observation

Visual inspection is one of the most effective methods for gathering information. This requires a sharp, critical eye, which is the IC's primary tool for evaluating conditions during initial and ongoing operations.

Key Visual Observations:

- **En Route to the Scene:**
 - Assess weather conditions (e.g., wind speed and direction).
 - Look for smoke, fire, or other visible indicators on the horizon.
- **Upon Arrival:**
 - Whenever possible, approach the scene in a way that provides visibility of at least three sides of the structure.
 - Conduct a full 360-degree drive-around for a comprehensive assessment (if feasible, often by later-arriving Command Officers).

What to Look For:

- Incident layout and potential hazards.
- Obstructions affecting access or egress.
- Extent and severity of the problem.
- Potential structural failures.
- Rescue situations requiring immediate action.

Note on Visual Information Priority

What the IC sees from the CP takes precedence over reports from others.

- Example: If interior crews report progress ("We're getting it!") but the IC observes significant external fire activity (e.g., a 10-foot fireball through the roof), the IC must prioritize their direct visual observation.

This ensures decisions are based on the most accurate and actionable information available.

Combining experience, visual observation, reconnaissance, and pre-incident familiarity, the IC creates a comprehensive intelligence framework to effectively manage any incident.

3.3.3 - Reconnaissance Information

When the IC cannot directly observe certain conditions from their fast-action or Command Post position, they rely on reconnaissance information gathered by personnel assigned to specific geographic or functional areas. This information may also come from other sources, such as:

- Division/Group (S/D/G) Officers addressing specific issues or locations.
- Owners or occupants.
- Technical representatives.
- Other agencies (e.g., law enforcement, EMS).
- Media feeds, including video footage.

Reporting Back to Command

When companies and S/D/G Officers are assigned to key positions, they must report the conditions within their areas. This feedback enables the IC to:

- Build a comprehensive strategic picture of the incident.
- Keep the overall strategy and attack plans updated.
- Ensure all hazard-zone personnel remain connected and coordinated.

Levels of Information Management

The IC must understand the big picture of the incident, including:

- Overall situation.
- Resource allocation.
- Organizational and operational statuses.

Each level of the incident organization focuses on specific information needs:

- **Division/Group Officers:** Concentrate on tactical operations, ensuring coordination and integration.
- **Company Officers and Crews:** Handle detailed information necessary for task-level operations.

As information flows toward the task level, it becomes more focused and detailed to support direct, hands-on work.

3.3.4 - Pre-Incident Planning (PIP)

Pre-incident planning (PIP) equips the IC and response teams with vital information often difficult to gather during an active incident.

Advantages of PIP:

- Conducted under ideal conditions (daytime, non-emergency settings).
- Provides valuable facts and details about tactically significant occupancies.
- Familiarize crews with critical locations, layouts, and potential hazards before an event occurs.
- Ability to utilize the EPR Response mode while en route to the call

Purpose:

By visiting critical sites during PIP activities, responders gain heightened awareness and operational knowledge, improving their ability to respond effectively under high-pressure conditions.

Together, reconnaissance and pre-planning information provide the IC with a robust framework for informed decision-making and efficient incident management.

3.4 - Critical Factors

Critical factors are the elements of an incident that can lead to significant consequences, ranging from minor to fatal. These factors are termed "critical" because they directly influence the safety and success of operations. The IC's role in information management is to identify the most consequential factors and focus on reducing, stabilizing, eliminating, or avoiding their adverse outcomes.

This requires a systematic approach to identifying and prioritizing critical factors. There are eight (8) main categories of critical factors:

1. Building Type
2. Occupancy
3. Arrangement
4. Life Safety - **PRIORITY**
5. Fire
6. Resource
7. Action
8. Special Circumstances

3.4.1 - Building Factors

- **Size:** Area and height of the structure.
- **Interior Access:** Stairs, halls, elevators, and other pathways.
- **Construction Type:** Fire resistance capabilities.

- **Age and Condition:** Structural weaknesses or faults.
- **Value:** Importance of the structure and its contents.
- **Compartmentation:** Separation and fire containment features.
- **Openings:** Doors, windows, and degree of security.
- **Utilities:** Hazards and controls.
- **Concealed Spaces:** Attack pathways and hidden voids.
- **Structural Damage:** Effect of fire on the building at present.
- **Time Projections:** Anticipated impact of ongoing fire on the structure.
- **Remaining Combustible Material:** How much of the structure is left to burn?

3.4.2 - Occupancy Factors

- **Type:** Business, mercantile, public assembly, institutional, hazardous, industrial, storage, or educational.
- **Value:** Importance of the occupancy.
- **Fire Load:** Nature and size of combustible materials.
- **Status:** Open, closed, occupied, vacant, abandoned, or under construction.
- **Occupancy-Specific Hazards:** Risks associated with the type of use.
- **Contents:** Type and arrangement of materials.
- **Time Considerations:** How occupancy use is affected by time.
- **Salvage Needs:** Property conservation and susceptibility of contents to damage.

3.4.3 - Arrangement Factors

- **External Exposures:** Distance, arrangement, and combustibility.
- **Internal Exposures:** Layout, arrangement, and nature.
- **Spread Risks:** Severity and urgency of fire spread potential.
- **Barriers and Obstructions:** To both operations and fire control.
- **Access:** Capability or limitations for apparatus movement and use.
- **Fire Perimeter:** Most dangerous direction for spread.

3.4.4 - Life Safety Factors - PRIORITY

- **Occupant Location:** In relation to the fire.
- **Occupant Numbers:** Total number affected.

- **Condition:** Physical state of occupants and incapacitations.
- **Rescue Needs:** Resources required for effective search and rescue.
- **Fire Control for Rescue:** Suppression needed to support rescue.
- **EMS Needs:** Medical requirements on site.
- **Escape Routes:** Type, safety, and accessibility.

3.4.5 - Fire Factors

- **Size:** Overall dimensions and intensity.
- **Extent:** Percentage of the structure involved.
- **Location:** Specific origin and spread.
- **Stage:** From inception to flashover.
- **Travel Path:** Direction and speed of spread.
- **Material Involved:** Contents, interior finishes, and structural materials.
- **Combustion Products:** Smoke, heat, flame, and gases.
- **Access to Fire:** Ability to directly apply suppression efforts.

3.4.6 - Resource Factors

- **On-Site Resources:** Staffing and equipment currently available.
- **Responding Resources:** Units en route and estimated arrival times.
- **Reserve Resources:** Backup personnel and equipment.
- **Water Supply:** Hydrant availability, supplemental sources, and adequacy.
- **Built-In Protections:** Sprinklers, alarms, standpipes, and smoke removal systems.

3.4.7 - Action Factors

- **Effectiveness:** Impact of current actions.
- **Operational Stage:** Rescue, fire control, property conservation, or stabilization.
- **Safety Measures:** RIC, safety divisions, and operational planning.
- **Command Status:** Organization, planning, and forecasting effectiveness.
- **Resource Sufficiency:** Personnel, equipment, water, SCBA air, and logistics.
- **Worst-Case Scenarios:** Preparedness for the unexpected.

3.4.8 - Special Circumstances

- **Time of Day:** Impact of day vs. night operations.
- **Seasonal Factors:** Weather conditions (e.g., wind, snow, rain, heat).
- **Special Events:** Holidays, gatherings, or other contextual challenges.

- **Social Unrest:** Riots, terrorism, or other disturbances.

By systematically assessing these Critical Factors, the IC can develop a comprehensive understanding of the incident and precisely guide operations, prioritizing safety and efficiency.

3.5 - Managing Critical Factors

Incident critical factors are crucial elements an IC evaluates to make decisions, initiate operations, and review and revise strategies. These factors form a checklist to guide Size-Up, decision-making, and operational adjustments.

Command manages these factors through a systematic process that includes:

1. Rapid overall evaluation.
2. Prioritization of critical factors.
3. Gathering more information about each factor.
4. Focusing on significant factors affecting the incident.

Critical factors are dynamic, and their relative importance changes as the incident evolves. The IC must continuously monitor and respond to these changes, making decisions based on updated information about the most significant factors.

Revising the Incident Action Plan (IAP):

Successful operations require the IC to constantly revise the IAP, reconsidering major critical factors based on ongoing feedback. For example:

- When using an offensive strategy, the initial Size-Up begins outside the hazard zone, assessing external conditions.
- Once inside the hazard zone, additional information, such as smoke, heat, and visibility, informs further decision-making.

As operational positions report progress and conditions, the IC integrates this data with its observations to refine strategies and actions.

3.5.1 - Fixed vs. Variable Factors

- **Fixed Factors:**
 - These are unchangeable, such as building location, occupancy type, or exposure distance.
 - The IC incorporates these realities into the IAP.
- **Variable Factors:**

- These are controllable, such as smoke conditions, secured buildings, or fire suppression.
- Actions like ventilation, forcible entry, or water application address these factors.

3.5.2 - Critical Unknowns

At the start of operations, the IC often works with incomplete information, relying on visible critical factors. Identifying "**knowns**" and "**unknowns**" is essential.

The IC must:

- Quickly assess what is known and unknown.
- Address unknowns as operations progress, especially when they involve firefighter safety.
- Prioritize immediate action on unknowns that could impact survival or safety.

3.5.3 - Safety "Red Flags"

Red Flags are indicators of potential danger that must be addressed immediately. The IC should be cautious, assuming the worst until proven otherwise.

Examples of Red Flags include:

- Fire in attics or basements.
- Operating above a fire.
- Zero visibility or encountering high heat.
- Difficulty locating the fire.
- Visible fire despite reports of "fire control."
- Victims located.
- Wind-driven fires.
- Smoke or fire showing through cracks in walls.

3.5.4 - 10-Minute Elapsed Incident Time Notifications

Two critical time factors constrain structure fires:

1. Building structural integrity under flame exposure.
2. SCBA air supply duration.

The telecommunicator provides **10-minute Notifications** to the IC on the assigned channel. These reminders prompt the IC to:

- Reevaluate conditions and strategy.
- Monitor firefighter time within the hazard zone.
- Decide whether to continue or terminate Watchdog notifications based on incident factors.

3.5.5 - Tactical Priorities and Time Considerations

Tactical priorities provide a structured checklist for operations, including:

- Search and rescue.
- Fire control.
- Property conservation.
- Customer stabilization.

Effective communication ensures these priorities are completed within critical factors and safety considerations.

3.5.6 - Continuous Reevaluation

Critical factors evolve dynamically; they are either improving or worsening. The IC must continually reassess these factors to:

- Adapt strategies and the IAP accordingly.
- Align actions with the updated risk management plan.

4.0 - Command Function #4: Strategy & Incident Action Planning

The IC must quickly assess hazards and determine the correct actions to control the incident effectively. Initial actions shape the trajectory of the event, making early decisions critical.

4.1 - Matching Standard Conditions to Standard Actions for Standard Outcomes

Standard conditions are the incident's current critical factors (identified in Size-Up). The IC must:

- Identify critical factors before acting.
- Use these factors to create an IAP aligned with current conditions.
- Base decisions on accurate and relevant information for effective operations.

This process ensures incident outcomes are:

- Standardized.
- Safe.
- Well-managed.

4.2 - Strategic Decision-Making Model

The **Strategic Decision-Making Model** offers a structured, step-by-step approach to initial emergency operations:

1. **Identify Critical Factors:**
 - Recognize the key elements impacting the incident.
2. **Base Actions on Evaluation:**

- Develop strategies informed by critical factors.

3. Continual Reevaluation:

- Regularly reassess factors to keep the plan relevant and maintain safety.

By following this sequence, the IC ensures deliberate, adaptive, and effective incident management

4.3 - Developing the Incident Strategy and IAP Using Critical Factors

To develop and execute operations based on the incident's critical factors, a standard evaluation approach and the incident management system (IMS) must be used. Effective management of these factors, as outlined in Command Function 3: Situation Evaluation, ensures that the strategy and Incident Action Plan (IAP) are tailored to the incident's evolving needs.

4.4 - Risk Management Plan (RMP)

Fireground operations are categorized into one of two strategies: Offensive or Defensive. These strategies are guided by a standard Risk Management Plan (RMP), applicable to all Immediately Dangerous to Life and Health (IDLH) hazard zones.

The RMP establishes the following guidelines:

- **We will risk our lives a lot** to save savable lives.
- **We will risk our lives a little** to save savable property.
- **We will NOT risk our lives** for lives or property that are already lost.

These levels of risk must always be **highly calculated and controlled**, relying on department policies, training, and safety systems (e.g., PPE, radios, apparatus, water supply).

The IC must begin operations assuming that a positive outcome is achievable for the customer. Rescue operations in the hot zone are the only scenarios where the RMP permits significantly higher levels of risk. Such operations require:

1. A deliberate evaluation of the situation.
2. A conscious decision by the IC.
3. Continuous application of safety policies.

The overall strategy (offensive or defensive) must be re-evaluated and declared after achieving critical benchmarks, such as an "all clear."

4.5 - Determining the Overall Incident Strategy

The IC's management of the incident strategy has the greatest impact on responder safety.

Operational strategies are divided into two categories:

1. **Offensive:** Conducted inside the hazard zone.
2. **Defensive:** Conducted outside the hazard zone, in safe locations.

These strategies create a clear, simple plan that determines how close responders will get to the hazards.

The overall strategic decision must be based on:

- The critical factors present at the scene.
- The guidelines of the RMP.

Key Considerations:

- Avoid unnecessary risks to save property when firefighters operating in the hazard zone are the only life safety threat.
- Do **not** combine offensive and defensive operations in the same fire area.

4.6 - Declaring the Incident Strategy in the Initial Radio Report (IRR)

The IC must declare the incident strategy as part of the Initial Radio Report (IRR). This ensures:

- All responders are immediately aware of the overall strategy.
- There is no ambiguity about whether operations are inside or outside the hazard zone.

4.7 - Confirming Ongoing Strategy with Elapsed-Time Notifications (ETN)

When an offensive working fire is declared, the telecommunicator will initiate Elapsed-Time Notifications (ETN) every 10 minutes on the PS/TAC channel.

IC Responsibilities for ETN:

- Verbally acknowledge each 10-minute notification.
- Re-announce the incident strategy on the tactical radio frequency.
- Continue these updates until the incident is under control or the IC requests to discontinue or restructure notifications.

4.8 - Implementing the Strategy and IAP with Incident Organization and Communications

Effective operations require alignment with the IMS and the declared strategy. The IC uses radio communications to manage operations, beginning with the IRR and continuing with assignments for arriving units.

Operational Flow:

- Units arriving on scene conduct **Level 1 Staging** and are assigned specific tasks, locations, and objectives.
- Units report to Command with progress or CAN (Conditions, Actions, Needs) reports.
- This feedback loop ensures all responders are connected to the overall strategy.

Decentralizing Operations:

The IC assigns **Sectors/Divisions/Groups (S/D/Gs)** to manage specific areas. These officers provide key advantages:

- **Access Control:** Manage entry into and out of the hazard zone based on the current strategy.
- **Enhanced Visibility:** Maintain a better view of their assigned area's conditions.
- **Safety Oversight:** Directly manage safety within their area.

The IC provides S/D/G Officers with:

1. The overall strategy.
2. Objectives for their area.

As progress is made, conditions change, or objectives are met, S/D/G Officers must report updates to the IC.

The IC processes these reports to adjust the overall strategy and refine the IAP as needed, ensuring effective incident management.

4.9 - Standard Company Functions

The Wilmington Fire Department has established standard company operations to allocate essential fireground functions and activities based on the unique capabilities of each unit type. This ensures tasks are assigned to the most appropriate units for efficient execution. By coordinating engine and ladder/truck companies, operations align with tactical priorities to effectively implement the chosen strategy.

Benefits of Standardized Operations:

- Streamlined communication by reducing the level of detail in IC orders.
- Minimized radio traffic, enabling faster action on the fireground.

Expectations for Company Functions During Working Fire Incidents

All companies are expected to perform the following key functions during working fire incidents:

- Deliver an Initial Radio Report (IRR) and assume command with clear communication.
- Conducting primary searches to locate and rescue victims.
- Securing and maintaining a reliable water supply.
- Deploying properly stretched hose lines for effective suppression.
- Performing ground ladder deployment, especially for structures with two or more stories.
- Ensuring strategic apparatus placement to maximize efficiency.

Standard Operations for Engine, Truck, Rescue, Squad Companies

These standard operations are the foundation for field assignments, ensuring consistency and safety during incidents.

Standard Engine Company Functions

Engine companies are responsible for:

- Efficient and adequate water supply establishment, proper hose line selection, stretching hose lines, and fire confinement and control.
- Conducting and/or protecting support crews for effective search and rescue efforts.
- Opening concealed spaces through detailed overhaul/salvage.
- Supplying water to master streams and pumping supply lines.
- Performing loss control activities.

Standard Support Company Functions (Truck or Rescue Companies)

Support companies are tasked with:

- Conducting efficient and effective search and rescue operations.
- Performing ventilation, forcible entry, and effective ground ladder deployment.
- Roof Reports
- Assisting crews with fire location
- Providing access and assessing fire extension.
- Controlling utilities and providing scene lighting.
- Deploying aerial devices and operating ladder master streams
- Conducting salvage/overhaul
- Conducting extrication/disentanglement
- Executing loss control measures.

Standard Support Company Functions (Squad Companies)

Support companies are tasked with:

- Being assigned to any task supporting Engine, Truck, or Rescue company operations
- Establishing and maintaining a water supply, stretching hose lines, and fire control
- Conducting efficient and effective search and rescue operations.
- Performing ventilation, forcible entry, and ground ladder deployment.
- Controlling utilities and providing scene lighting
- Conducting salvage/overhaul
- Executing loss control measures.

Operational Expectations for All Companies

All companies must be prepared to perform their assigned functions safely and effectively, regardless of apparatus type. The IC's responsibility is to continuously integrate these tasks with on-scene units, ensuring cohesive operations.

This standardized framework promotes a coordinated, efficient, and adaptable response to fire ground operations, prioritizing safety and achieving incident objectives.

4.10 - Strategic Level Water Supply Considerations

Water supply is critical to managing attack positions in both offensive and defensive strategies.

The IC must maintain an acute awareness of:

- Required and projected fire flows.
- Adequacy of the water supply to safely extinguish the fire.
- Water supply sources and their ability to meet tactical demands.
- Apparatus and units needing a water supply.
- Capacity of pumpers to supply handlines and large-diameter openings.

Emergency Water Supply Failure:

If a water supply is lost during interior operations, the pump operator must:

- Activate **5 long air horn blasts** to signal evacuation.
- Follow up with **PRIORITY radio traffic** to notify the IC and on-scene crews.

Managing Water Supply Assignments:

The IC must specify:

1. The apparatus's role in water supply.
2. Deployment of handlines and their water source.

This prevents congestion and ensures efficient attack positioning.

4.10.1 - Forward & Relay Pumpers

A Forward Pumper is positioned at primary attack locations where hose, water, and equipment are deployed directly into or around the hazard zone.

4.10.2 - Pressurized Water Supply

Supply line placement:

- Lay lines on the same side as the hydrant, crossing over only at the fire scene if necessary.
- Maintain a maximum speed of **5 mph** to ensure controlled deployment.

First Due Engine Expectations:

- Lay a supply line approaching a scene with visible fire and nearby hydrants.

- If the first engine does not establish water, the second engine must secure an uninterrupted supply and should be communicated to the next company arriving LEVEL 1.

Hydrant Utilization:

- Identify and use secondary hydrants to avoid reducing water availability for forward pumpers.

Key Components of Water Shuttle Operations:

1. **Dump Site:** Portable water tanks near the scene.
2. **Travel Time:** Minimized time between fill and dump sites.
3. **Fill Site:** Fire hydrants, well pumps, or drafting locations near the scene.

To reduce congestion, shuttle operators should use a separate radio channel managed by a Water Supply Supervisor.

4.10.3 - Dump Site

The initial engine company used its tank water for immediate attack and assisted in setting up portable tanks for a continuous water supply.

4.10.4 - Travel Time

Travel time between the fireground and the fill site should be minimized by considering:

- Distance and obstructions.
- Road conditions and fill-site capacity.

4.10.5 - Fill Site

Fill sites should be selected in the following order:

1. Hydrants closest to the scene.
2. Nearby well pumping stations.
3. Drafting locations.

Assign a dedicated drafting pumper for static sources to maintain quick turnaround times.

By following these water supply guidelines, the IC ensures effective fire suppression and efficient resource management.

4.11 - Strategic Level Attack Line Deployment

When operating in the offensive strategy, attack hose lines of appropriate volume should be advanced inside the fire building (maximum 175 feet) to:

- Apply water directly to the fire.
- Control access points such as doors, hallways, stairways, or other vertical and horizontal channels used for occupant evacuation or fire spread.

All initial attack efforts must prioritize supporting rescue operations, ensuring hose lines are

strategically placed to:

1. Control interior access points.
 2. Confine and control the fire.
 3. Protect escape routes for occupants and firefighters.
- Additional hose lines should cover critical areas or reinforce in-place hose lines.
 - In more significant structures, secondary hose lines must protect alternate egress routes, always considering personnel operating in opposing positions.

A well-placed Incident Commander (IC) is best equipped to evaluate the overall effectiveness of the fire attack. Interior crews often have limited visibility and may misjudge their impact. The IC must continually compare interior reports with visible exterior conditions. If fire conditions remain unchanged despite progress reports, the IC's visual assessment from the Command Post (CP) takes precedence. Company Officers and Division Officers are responsible for monitoring and reporting the effectiveness of their fire streams, including where they are directed and their overall impact.

4.11.1 - Fire Streams and Fire Control

Fire control operations must account for the characteristics of fire streams, selecting the most effective nozzles and streams for the situation. Offensive attack activities must prioritize mobility, as slower movement shifts the operation toward a defensive approach.

Nozzle Options and Characteristics:

Smooth Bore Nozzles:

- Greater penetration, reach, and striking power.
- Reduced steam production, ideal for large, open spaces.
- 1.75" hose line with 7/8" tip.
- 2.5" hose line with 1 1/8" or 1 3/16" tip (primary choices).
- High-Rise Nozzle: 1 1/8" tip.

Fog Nozzles:

- Increased heat absorption and expansion, suitable for confined spaces and exposure protection.
- Shorter reach compared to smooth bore nozzles.
- 1.75" hose line: 50 psi / 160 GPM.
- 2.5" hose line: 50 psi / 250 GPM.

Water Can:

- 2.5Gallons / 30lbs
- 100 psi can operate 50 feet, 50 seconds.

Hose Line Selection:

- 1.75" Lines: Quick, mobile, delivers 160 GPM.
- 2.5" Lines: High volume (250–300+ GPM). No gated wyes for deployment.
- Blitz Nozzles: High flow for rapid knockdown.
- Engine-Mounted Master Streams: Large volume (400–1,250 GPM), quick setup, long reach, and penetration.

WFD Engine Company Standardization (Effective March 1, 2023)

Hose Deployment Setup:

Pre-Connect 1.75" Minuteman Hose Loads:

- Rear or transverse deployment.
- 200' and 300' options based on hose bed capacity.

2.5" Seattle Load:

- For both attack and extended hose operations.

1.75" Condo Kit Bundles:

- 100' pre-packaged hose with a smooth bore nozzle for extended deployment.

5" LDH (Large Diameter Hose):

- Flat load for water supply deployment.

While variations exist across the department, efforts are ongoing to standardize layouts for consistent deployment.

Standardized Terminology for Hose Deployment:

- **Stretching:** Deploying an attack hose line.
- **Extended:** Deploying additional 2.5" hose with a smooth bore nozzle, not including the condo pack (e.g., "Pull 300' extended to Division 2 for fire attack").
- **Condo Kit:** 100' pre-packaged 1.75" hose with a smooth bore nozzle.
- **Forward Stretch:** Deploying a Minuteman stack from the shoulder toward a target.
- **Back Stretch:** Dropping a Minuteman stack at the target and deploying hose in reverse.

Grip Techniques for Advancing Hose Lines:

- **Clamp Grip:** Hose clamped with the firefighter's leg for control.
- **Lock-Off Grip:** Dominant leg at a 90-degree angle, hose locked by the arm against the leg.
- **Chicken Wing Grip:** Hose locked under the firefighter's armpit.
- **Hip Grip:** Dominant leg at a 90-degree angle, hose secured at the hip.

Deployment Commands and Techniques:

- **Ready, Move:** Command to advance the hose.
 - **Preloading:** Staging hose for smooth advancement.
 - **Knee Walking:** Advancing a flowing hose line on hands and knees.
 - **NY Shuffle:** Alternate method for advancing a flowing hose line.
 - **Hold:** Command to pause hose advancement temporarily.
 - **Stop:** Command indicating the line has reached its target.
-

Hose Load Terminology:

- **Minuteman:** Hose load consisting of a shoulder section and dump section.
- **Shoulder Section:** The top section is designed to feed off during deployment.
- **Dump Section:** Flat-loaded section deployed via the dump bight for rapid extension.
- **Seattle Load:** Multiple 100' Minuteman stacks with exposed couplings for quick deployment.



4.12 - Tactical Priorities

Once the overall incident strategy is determined, the Incident Commander (IC) must manage the completion of tactical priorities specific to that strategy. Each strategy—offensive or defensive—has its own tactical priorities.

Purpose of Tactical Priorities:

Tactical priorities provide the IC with a concise and practical framework to guide operations, particularly during the critical initial stages of fireground planning. These priorities simplify the development of an Incident Action Plan (IAP), ensuring it remains actionable and practical under dynamic conditions.

By focusing on standardized objectives, the IC can maintain consistency and manage the primary work sequence at every incident using the same approach. This reduces confusion, promotes efficiency, and improves safety.

4.13 - Offensive Incident Action Planning

When the critical factors and risk-management plan (RMP) indicate an offensive strategy, firefighting forces will operate inside the hazard zone to control the incident. The offensive IAP is structured around standard offensive tactical priorities designed to guide operations and achieve benchmarks for success.

Offensive Tactical Priorities and Completion Benchmarks:

1. Fire Control (F/C):

- Benchmark: "***Under Control.***"

2. Life Safety:

- Benchmark: "***Primary and Secondary All Clear (A/C).***"
- Example: The IC requests confirmation (e.g., "***Unit #, confirm Primary Search All Clear on Division #***").

3. Property Conservation:

- Benchmark: "***Loss Stopped (LS).***"

4. Scene Stabilization:

- Short-term stabilization through coordinated efforts.

Note: Completion benchmarks (e.g., "***Under Control,***" "***All Clear***") do not need to be repeated to dispatch once communicated on the fireground.

Role of Tactical Priorities in Operations:

The offensive tactical priorities define the major operational activities required for an integrated response. They ensure that firefighting forces are working cohesively toward:

- Fire control.
- Life safety.
- Property conservation.

This framework helps the IC organize, execute, and adjust the IAP as needed to efficiently

achieve incident objectives.

NHC 911 Telecommunicator Time Stamps:

To support accurate documentation and communication, New Hanover County 911 has developed internal Telecommunicator Time Stamps for specific operational benchmarks. These are logged automatically when communicated on the fireground:

- **COMM:** Initial Radio Report/Command Established.
- **COMT:** Command Transferred.
- **PSA:** Primary Search Assigned.
- **PSC:** Primary Search Complete.
- **WSE:** Water Supply Established.
- **WOF:** Water on the Fire.
- **FUC:** Fire Under Control.
- **FOUT:** Fire Out/Loss Stopped.
- **2IN2:** Two-In, Two-Out.
- **MDAY:** Mayday Declared.
- **MDC:** Mayday Cleared.

This system ensures accurate tracking of critical actions and supports efficient incident management.

4.13.1 - Offensive Search and Rescue Operations

Search and rescue operations are a primary tactical priority during an incident, focused on locating and removing savable, endangered occupants in the hazard zone and protecting individuals exposed to incident hazards.

For offensive structural fires, the life safety priority is achieved through primary and secondary searches of the fire occupancy and any threatened exposures. The standard rescue order is used to prioritize these efforts:

1. The most endangered.
2. The largest group.
3. The remainder of the fire area/structure.
4. The exposures.

Supporting Search and Rescue with Attack Lines

Attack lines are deployed to:

- Advance directly to the most hazardous area (the fire) to position crews near the most endangered individuals.
- Search and protect corridors occupants might use to evacuate.
- Provide an "anchor point" for search operations by controlling fire spread and ensuring firefighter safety.

Hose line placement must support rescue efforts by controlling interior access, confining the fire, and protecting escape routes.

Search Assignments

The IC assigns resources to ensure a rapid and effective primary search of affected structures. Assigning companies to specific geographic areas:

- Prevents redundant searches.
- Ensures all critical areas are covered.

A protect-in-place strategy may be more effective for large, high-density, compartmentalized structures than attempting to evacuate multiple occupants not directly exposed to hazards. This strategy involves:

- Securing and protecting normal egress routes.
- Searching and clearing areas directly affected by the incident.
- Containing and controlling the hazard.
- Systematically clearing the remainder of the structure or exposures.

If primary search teams remove victims, the IC must reassign resources to maintain search coverage and provide necessary medical care. Secondary All Clears must be obtained and reported to Command.

Search Reporting and Communication

- Announce completed primary and secondary searches over the PS channel to Command using the Order Model.
- Avoid "All Clear" reports over the PS channel when multiple areas require search operations.

Search Priorities by Occupancy Type

- **Residential Occupancies:** High life safety focus due to potential 24/7/365 occupancy.
- **Commercial and Big Box Structures:** Lower life safety risk; initial actions should focus on fire suppression unless credible information suggests survivable occupants.

General Search and Rescue Guidelines

- **First-Hand Line Deployment:** Directly to the fire to protect firefighters and support searches.

- **Residential Structures:** Obtain "All Clears."
- **Commercial Structures:** Focus on fire suppression unless occupants are confirmed to be trapped.
- **Thermal Imaging Cameras (TICs):** Used primarily for search, rescue, and crew accountability.

Interior Hazard Zone Operations (Working Fire): Based on the critical factors identified by the Incident Commander (IC) through the Initial Radio Report (IRR) and follow-up reports, the IC, the IC will coordinate the tactical objectives for crews including locating the fire, conducting search operations, and ensuring fire confinement. Crews working in the Hazard zone should be under the protection of one of the following:

- Handline Operations
- Proximity of a Handline
- Imminent Rescue Situation for VEIS and Water Can

Safety Considerations

Once All Clears are obtained, firefighters should be considered the only life safety threat in the hazard zone.

Managing Critical Factors

- Continuous Size-Up: Ongoing assessment of the critical factors as the incident evolves.
- Prioritization: Focus on life safety, incident stabilization, and property conservation in that order.
- Clear Communication: Ensure concise and accurate updates about critical factors via the incident command system (ICS).
- Strategic Decision-Making: Base strategy and tactics on an accurate evaluation of critical factors, adjusting as needed.

4.14 - Defensive Incident Action Planning

A defensive situation arises when the incident has progressed to a point where lives and property are no longer savable, and offensive tactics are neither effective nor safe. The defensive strategy prioritizes firefighter safety above all else.

Defensive Strategy Tactical Priorities and Benchmarks

1. **Define the Hazard Zone:** Establish the boundaries of the hazardous area.
2. **Establish Cut-offs:** Stop forward fire progression.
3. **Search Exposures:** Achieve Primary and Secondary "All Clears" (AC).
4. **Protect Exposures:** Achieve "Fire Control" and "Loss Stopped."

Defensive operations provide a standard organizational response to situations where interior operations are unsafe or ineffective. The IC must assess the situation, write off lost property, and decide where defensive cut-offs will be implemented.

During extended defensive operations, the IC coordinates crew rotation through Dispatch & Deployment.

Basic Defensive Incident Action Plan (IAP):

1. Identify critical fireground factors.
2. Quickly assess and request additional resources.
3. Evaluate fire spread and write off unsavable property.
4. Search and protect exposures.
5. Prioritize fire streams to deliver large, well-placed volumes of water.
6. Implement "surround and drown" tactics.

4.14.1 - Transitioning from Offensive to Defensive Strategy

The IC must switch to a defensive strategy when initial offensive efforts fail to control the incident and conditions deteriorate. The decision should be made before structural collapse or conditions jeopardize firefighter safety.

Emergency Evacuation/Abandon Structure Procedure:

1. Signal evacuation:

- **5 LONG AIR HORN BLASTS.**
- Request **Emergency Tones/Traffic** from Dispatch.
- Dispatch transmits emergency tones and repeats the report verbatim.

2. Announce transition to defensive strategy:

- Inform all units in the hazard zone.
- Instruct all units to "Exit" or "Abandon" the structure.
- Obtain PARs from all units upon exit.

Definitions:

- **Exit the Structure:** An orderly withdrawal, repositioning lines and equipment.
- **Abandon the Structure:** An emergency retreat, leaving all equipment in place.

Post-Evacuation Actions:

1. Obtain PAR for all units exiting the hazard zone.
2. Ensure the safe exit of all personnel from the hazard zone.
3. Maintain radio silence from Level 1 Staged units and non-hazard zone units until PARs are complete.
4. Company Officers report crew status to Division Officers or Command.
5. Division Officers report the status of assigned crews to Command.

4.14.2 - Exposure Protection and Strategic Separation

Exposure protection becomes a top priority in defensive operations. Defensive fires often threaten nearby exposures, either directly connected to the fire area (e.g., strip malls, apartments) or located in close proximity.

Exposure Protection Actions:

- Advance hand lines into exposures.
- Search and clear exposures.
- Open and verify concealed spaces exposed to fire.
- Apply direct water streams to stop fire spread when necessary.

In extreme cases, exposures may need to be written off due to rapid fire extension or common concealed spaces.

Strategic Separation:

The IC must clearly separate defensive operations on the main fire occupancy from any offensive operations in exposures. For example:

- **Command Announcement:**
 - "Command to all units: We are operating in a defensive strategy on the main fire occupancy and offensive in the Bravo 1 and Delta 1 exposures."

4.14.3 - Defensive Water Application

Guidelines for Defensive Water Application:

- Master streams are the most effective defensive tactic.
- Consider aerial water application versus ground-based master streams.
- Shut down small diameter hand lines that do not directly protect exposures.
- Prioritize exposure protection before addressing the main fire.
- Use water streams for thermal-column cooling.

Defensive Fire Control:

Fire control in a defensive strategy indicates the fire's forward progress has been stopped, and the remaining fire can be extinguished with current resources. It does not mean the fire is completely out.

4.14.4 - Defensive Loss Control

No personnel should enter the hazard zone during a defensive fire.

Exception:

If initial defensive conditions improve quickly due to practical water application, the IC, Command Team, Division/Group Supervisors, and Safety Officers may deem it safe to enter for mop-up. This decision must follow a thorough Size-Up and tight operational control.

Loss Control in Exposures:

Loss control measures follow standard offensive loss control procedures for offensive operations in exposures during a defensive fire.

IC Loss Stopped Report:

Once the defensive operation secures exposures and extinguishes the fire, Command should transmit a "Loss Stopped" report, indicating all areas are stabilized and incident threats have been mitigated.

5.0 - Command Function #5: Communications

The primary goal of Command Function #5 is for the Incident Commander (IC) to establish, maintain, and control effective incident communications. Communication is the essential mechanism that connects and integrates the three levels of incident management: **strategic, tactical, and task. It is the conduit through which resources are committed, strategies are executed, and coordinated** actions occur.

To ensure effective communication, the IC must orchestrate ongoing, well-structured communication activities among a diverse set of participants who operate at various levels. Each level has distinct needs, capabilities, and challenges, creating a complex operational landscape. Success requires a robust, standardized, and well-practiced communication plan, supported by strong, functional relationships among all participants.

5.1 - Using Plain Text

Plain text communications, using clear and common English, are the foundation for incident operations. This approach aligns with NIMS standards and avoids confusion caused by outdated systems like 10-codes or other numbering schemes.

In multi-agency or multidisciplinary incidents, plain text is crucial to ensure all participants understand and share critical information effectively.

5.2 - Forms of Communication: Face-to-Face, Radio, Computers, and SOPs

Face-to-Face Communication:

Face-to-face interactions are the most effective form of communication, particularly at the task and tactical levels. It should be prioritized in the following scenarios:

- **Company Officers** interacting with their crew members.
- **Company Officers** coordinating with other Officers within their work area.
- **Tactical Level Supervisors** communicating directly with units assigned to their geographic location.

Face-to-face communication reduces misunderstandings and fosters clarity in high-pressure environments. However, it should not interfere with the IC's ability to manage the incident from the Command Post (CP). Face-to-face interactions with the IC should occur only when the hazards are controlled and initiated by Command.

Radio Communication:

Radio communication is essential for connecting the tactical and task levels with the IC, operating at the strategic level. While radio traffic does not directly resolve incidents, it often determines the overall outcome by facilitating clear, concise, and actionable information.

To minimize unnecessary radio traffic:

- Utilize mobile terminals to access aerial views and structural layouts.

- Rely on comprehensive Standard Operating Procedures (SOPs) to expedite task execution and reporting.

Other Communication Avenues:

- SOPs streamline actions and reduce verbal communication needs.
- Pre-established computer systems or apps enhance data sharing and operational clarity.

5.3 - Align Communications with Tactical Benchmarks

Communication should focus on achieving **tactical priorities** while ensuring firefighter safety. Keeping messages concise and purposeful prevents unnecessary airtime usage, leaving the channel clear for critical updates that impact the entire hazard zone.

For example:

If the IC assigns Engine 2:

"Lay a supply line to the Alpha side, stretch an attack line to the Delta 1 exposure for a primary search and check for fire extension. You will be Delta."

This sets a structured foundation for Engine 2 to report back:

"Delta to Command, primary all-clear in Delta 1, working attic fire. We are applying water and opening more ceilings. Requesting additional support for fire control in the attic."

5.4 - Upgrading the Fast-Attacking Command Position

In the early stages, the first-arriving Company Officer typically assumes the role of Fast-Attacking IC (IC #1). They face a narrow window of opportunity to deliver clear, concise communications before entering a hazard zone in full PPE.

To maximize effectiveness:

1. IC #1 must deliver a complete Initial Radio Report (IRR) and Follow-Up Report before entering the hazard zone.
2. These reports provide responding units with essential details on the situation, initial actions, and the IC's location.
3. IC #1 can assign initial tasks to 2-3 key responders before engaging directly in operations.

In rapidly escalating incidents, Command should transition to a stationary CP operated by a later-arriving Chief Officer. The stationary CP provides the IC with a strategic advantage in communication and resource management.

5.5 - Critical Listening and Understanding Communication Challenges

Placing the IC in a strategic CP (e.g., outside the hazard zone, in a vehicle) ensures they can manage incident communications. Field units operating in the hazard zone often face significant communication barriers, such as:

- Environmental distractions (noise, smoke, heat).
- Limited equipment functionality.

Understanding these challenges enables the IC to maintain coherent communication with operational units. Companies must recognize that portable radios are their only link to the outside world, and clear communication is essential for their safety and accountability.

A dedicated operator should manage each channel for large or complex incidents requiring multiple radio frequencies (e.g., staging, logistics), leaving the IC focused on one primary tactical frequency.

5.6 - Organizational Chart as a Communication Flow Plan

Dividing the incident scene into Sectors, Divisions, or Groups (S/D/G) improves communication efficiency. Assigning Division Officers responsibilities in specific tactical areas achieves two key objectives:

- Reduces the IC's span of control.
- Simplifies communication by centralizing reports from specific areas.

For example:

The IC should designate a Geographic Supervisor if multiple units operate within the same geographic area. All communications from that area flow through this supervisor to the IC. This structure ensures clarity and avoids overloading the IC with individual updates.

5.7 - Maintaining Communication Availability

The IC must focus on units operating within the hazard zone to manage strategic-level safety and tactical coordination. Effective system operation (building, expanding, reinforcing) is vital to connecting with companies in hazardous positions.

5.8 - Standard Order Model for Structured Communications

The Standard Order Model structures incident communication to ensure messages are transmitted, received, and understood despite the high-pressure environment. It involves five steps:

1. The sender calls the receiver to confirm readiness.
2. The receiver acknowledges readiness.
3. The sender delivers the message clearly.
4. The receiver restates the message to confirm understanding.
5. The sender clarifies or corrects if needed.

This process reduces radio traffic, eliminates confusion, and enhances safety and accountability.

5.9 - Seven Basic Types of Radio Transmissions

Incident radio transmissions can be categorized into seven types:

1. **Initial Radio Report (IRR)**
2. **Follow-Up Report**
3. **Assigning Units**
4. **Command Transfer**
5. **Condition-Action-Needs (CAN) Reporting**
6. **Roof Reporting**
7. **Offensive-to-Defensive Strategic Shift**

5.10 - Standard Initial Radio Report (IRR)

The IRR initiates the communication process by providing a snapshot of conditions upon the IC's arrival. It includes:

1. **Arrival Announcement:** Notify dispatch and responders of arrival.
2. **Building/Area Description:** Size, height, and occupancy type.
3. **Problem Description:** Fire location, HazMat, or other critical issues.
4. **Strategic Declaration:** Offensive or defensive approach.
5. **Initial Actions:** Tasks, water supply, and safety concerns.
6. **Resource Needs:** Additional units or equipment.
7. **Command Naming:** Officially assume and name command.

5.10.1 - Clearing an Alarm

Clearing the alarm ensures the IRR is broadcast on the correct channel, alerts responders, and activates Level 1 Staging.

5.10.2 - Building/Area Description

Structures are categorized by size, height, and occupancy type:

- **Size:** Defines access levels for a 200-ft handline (Small, Medium, Large, Mega).
- **Height:** Number of stories.
- **Occupancy Type:** Residential, commercial, industrial, etc.

Accurate descriptions guide resource allocation and tactical decisions, especially for complex layouts like apartment complexes or rowhouses.

5.10.3 - Describing the Problem

When describing fire conditions during an Initial Radio Report (IRR), the following four standardized terms should be used:

1. **Nothing Showing** - No visible signs of fire or smoke.
2. **Smoke Showing** - Visible smoke but no flames.
3. **Working Fire**—Active fire conditions require a charged hose line, SCBAs, and potentially the commitment of all responding units.
4. **Defensive Fire Conditions**—The Fire has progressed to a point where an interior attack is unsafe or ineffective, necessitating defensive operations.

"Working Fire" Definition

The term "**Working Fire**" indicates:

- The situation requires at least one charged hose line and SCBA usage.
- Responding companies will likely engage in extended tactical operations.

This designation notifies Dispatch and responding units to prepare for sustained operations.

Identifying the Problem Location

The location of the fire or hazard must be communicated in the IRR to ensure efficient response and deployment. Include:

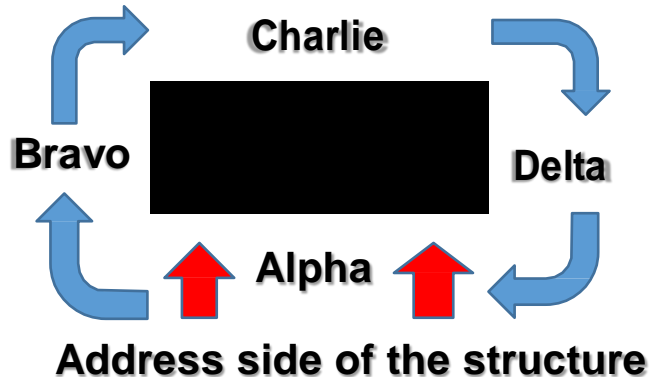
- **Division:** Specify the division (e.g., Division 1, Division 2, or Roof) where the problem is located.

- **Long Buildings:** For extended structures such as apartments or strip malls, indicate whether the fire is in the middle or at the Bravo or Delta end.
- **Large Structures:** Specify the side of the structure where the fire or hazard is located (e.g., "Alpha Side" or "Charlie Side").

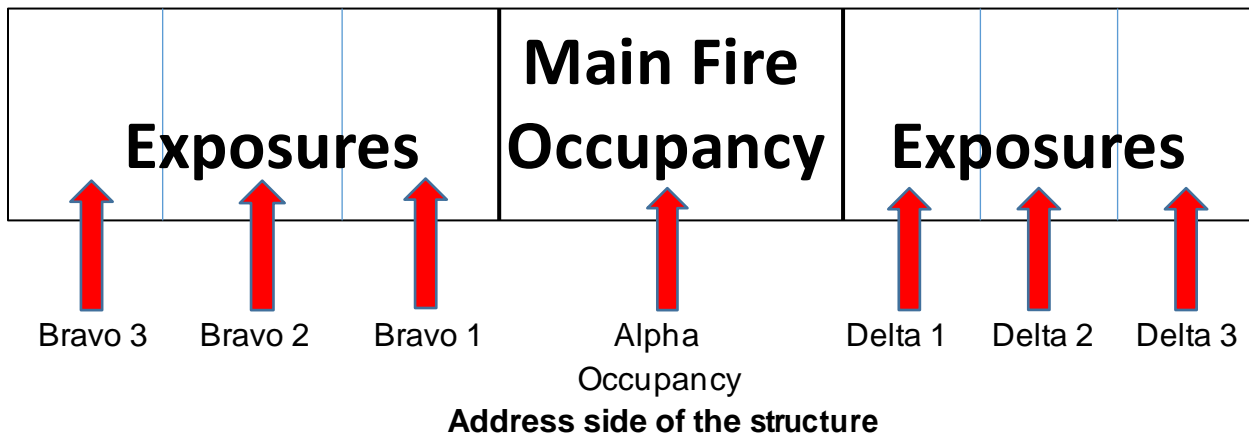
Describing what the problem is and where it is located paints a very good picture to everybody on what the scene looks like and where the subsequent arriving Units will probably fit into the IC's IAP.

Geographic Landmarks:

Sides of a building will be described as:



The Alpha side of the structure is "usually" the address, street side. There will be many situations where it is not clear where the Alpha side is. In situations where there is any confusion on the incident landmarks, initial arriving ICs must make it clear where the Alpha side is located.



Exposures

Exposures are identified relative to their position in the main fire occupancy, starting with the closest exposure and moving outward sequentially. When the IC provides both the exposure number and occupancy details (e.g., apartment number or type), it significantly enhances all responders' situational awareness and directional clarity.

Floors as Divisions

On the fireground, floors are identified as Divisions to maintain consistency and clarity. Each floor is referred to by its corresponding division number (e.g., the second floor is identified as "Division 2"). This standardized terminology ensures clear communication and coordination during operations.

Floor	Fireground Identification
Floor 4	Division 4
Floor 3	Division 3
Floor 2	Division 2
Floor 1	Division 1
Sub-Floor 1	Sub-Division 1
Sub-Floor 2	Sub-Division 2

5.10.4 - Initial Incident Action Plan (IAP):

The IAP provides the operational framework for completing tactical priorities. It should be concise and focused. The initial IAP includes:

- **Tasks:** What the first-arriving unit will do.
- **Location:** Where the tasks will be performed.
- **Objectives:** What the tasks aim to accomplish.

Standard Tasks:

- Investigating (e.g., "nothing showing").
- Establishing a water supply.
- Stretching handlines.
- Operating a master stream.
- Forcible entry operations.
- Performing a physical rescue.

Task Location:

- Specify the division or floor of operation.
- Identify the occupancy or exposure involved.
- State the entry point.
- Indicate defensive positions when applicable.

Task Objectives:

The tasks should align with tactical priorities:

- **Search/Rescue:** Achieving Primary and Secondary "All Clears."
- **Fire Control:** Declaring the fire "Under Control."
- **Loss Control:** Marking the incident as "Loss Stopped."

5.10.5 - Declaration of Incident Strategy:

The operational strategy is categorized into two distinct approaches:

1. **Offensive:** Conducted within the hazard zone.
2. **Defensive:** Conducted from safe locations outside the hazard zone.

Declaring the strategy upfront in the IRR:

- Ensures everyone understands the overall approach.
- Clarifies whether operations are inside or outside the hazard zone.

5.10.6 - Resource Determination:

The first-arriving IC must match the incident's challenges with the necessary resources. Resource requests should be made early for the highest likelihood of success. Options include:

- Canceling additional units.
- Holding the original assignment.
- Reconfiguring the call type.
- Requesting additional alarms.

5.10.7 - Assume and Name Command:

Effective incident management starts with a clear and in-charge IC. Command should be named using the location or occupancy (e.g., "Main Street Command," "Hospital Command"). This designation remains consistent throughout the incident.

5.11 - Follow-Up Reports:

The IRR is often transmitted from the front seat of the first arriving engine. Follow-up reports provide updates and are typically the last transmission from a Fast-Attacking IC before entering the hazard zone. These reports should include:

1. Results of a 360-degree size-up.
2. Changes to the initial IAP.
3. Accountability location.
4. Immediate safety concerns.

5.11.1 - Results of a 360-Degree Size-Up:

A 360-degree survey should be conducted whenever possible. If the first arriving IC cannot complete a 360 due to size or complexity, the task should be assigned to a later-arriving unit. The follow-up report should include:

- Immediate life safety concerns.
- Building height or additional stories noted from the Charlie side.
- Basement type and conditions if applicable.

Examples:

1. *"360 complete: Structure is three stories from the Charlie side with a walkout basement. Hazards include a propane tank on the Charlie/Delta corner. No changes to the IAP."*
2. *"360 not complete due to building size. Remaining defensive strategy due to roof failure; requesting a second alarm."*

5.11.2 - Changes to the IAP:

Adjustments to the IAP after a 360 must be reported if conditions warrant, such as:

- Discovery of physical rescues.
- Basement fires.
- Fire located in a different area than initially reported.

5.11.3 - Accountability Location:

The first-arriving unit typically establishes the initial accountability location at a specific geographic location. For example, "Engine 1 will be the Alpha-side accountability location."

5.11.4 - Immediate Safety Concerns:

Identify and report safety hazards such as:

- Collapse risks.
- Hazardous roof structures.
- Downed or arching power lines.
- Gas meters or tanks exposed to fire.
- Hidden hazards like pools or heavy roof tiles.

5.12 - Assigning Units:

Incident operations should focus on completing tactical priorities. Orders should be concise, structured in a Task-Location-Objective (TLO) format.

Tasks:

- Establishing or supporting a water supply.
- Stretching handlines.
- Operating equipment or master streams.
- Performing rescues or forcible entry.
- Acting as a tactical reserve (On-Deck).

Location:

- Specify division, occupancy, exposure, and entry points.

Objectives:

- Align tasks with benchmarks like "All Clears," "Under Control," or "Loss Stopped."

When assigning units, the IC should specify:

- Where handlines or equipment will come from.
- Apparatus positioning instructions.

5.13 - Command Transfers:

Command transfers should follow a structured process to ensure continuity:

1. Verify operating positions match current conditions.
2. Announce arrival to the scene.
3. Use the Order Model to confirm the positions and functions of resources.
4. Announce the assumption of command.
5. Notify dispatch of the command transfer.

6. Reaffirm strategy and determine resource needs.
7. Identify the location of the Command Post.

Examples:

- *"Battalion 2 assuming Market Street Command. We will remain in the defensive strategy."*
- *"Requesting a second alarm; staging location at Market and 5th Ave."*

5.14 - CAN Reporting

Conditions/Actions/Needs (CAN) Reporting provides a standardized, straightforward method for personnel on the scene to update the Incident Commander (IC) about their progress, challenges, and resource requirements. Responders can efficiently deliver critical information by following the CAN format, helping the IC maintain situational awareness and adjust the strategy or Incident Action Plan (IAP) as necessary.

The **CAN** acronym stands for:

- **Conditions:** Current observations at the scene (e.g., smoke, fire, obstacles).
- **Actions:** Tasks being performed (e.g., fire suppression, search and rescue).
- **Needs:** Additional resources or support required to continue or complete the task.

Purpose of CAN Reports

CAN Reports simplify communication, ensure consistency, and provide the IC real-time updates to manage incident operations effectively. They should always align with the IC's assignments and focus on completing tactical priorities.

Examples of CAN Reporting Elements

Conditions

- Any obstacles encountered.
- Current smoke conditions (e.g., color, density, movement).
- Interior visibility levels.
- Fire and heat conditions.
- Structural integrity or layout concerns.
- Fire separation and fuel load observations.
- Areas or items currently burning.
- Areas or items not yet burning.

Actions

- Progress on primary and secondary "All Clears."
- Progress on fire control ("Under Control").

- Efforts to locate and extinguish the fire.
- Checking for fire extension or hot spots.
- Ventilation or forcible entry actions.
- Securing utilities or exposures.
- Monitoring concealed spaces.
- Reporting Personnel Accountability Reports (PARs).

Needs

- Additional personnel for reinforcement or relief.
- Specific tools or equipment.
- Cover for unprotected or critical areas.
- Immediate assistance or urgent help.

When to Provide CAN Reports

- After completing assigned tasks or benchmarks.
- Upon encountering unexpected conditions or obstacles.
- When additional resources or equipment are required.
- At regular intervals, as determined by the IC, for continuous updates on progress.

Example CAN Report:

"Command from ENG 1 with a CAN Report: Conditions - heavy black smoke, zero visibility, and high heat in Division 2. Actions - advancing the handline, checking for fire extension, and conducting a primary search. Needs - relief crew and ventilation support on this floor."

When 3 to 4 Units (and up) are assigned to the incident site the tactical channel can start to fill up with unnecessary radio traffic. The two (2) main reasons for this are:

1. Assigned Units are communicating/contacting the IC with non-essential radio traffic.
2. The IC themselves are communicating non-essential radio traffic.

The IC MUST control the radio traffic on the PS channel or they will not be able to control the overall incident site. The following radio guidelines are to be strictly adhered to when there are Units assigned in a hazard zone:

- Know exactly what you're going to say before clicking the microphone to talk.
- Only communicate information on the tactical channel that pertains to the completion of the tactical priorities and firefighter safety.
- Always let communication loops close before clicking the microphone button to talk.
- Let the IC be the one to contact you.
- Only break into the Order Model with high priority traffic.
- Try to always end every CAN Report with a Needs Assessment (or "No Needs").

The four (4) major types of communication to the IC.

1. Routine radio traffic
2. Status Changes
3. Roof reports
4. Priority traffic

5.15. – Routine, Non-Emergency Radio Traffic

Non-emergency and routine radio traffic should be kept to a minimum to avoid overwhelming the main dispatch channel.

- Individual Units desiring to communicate with Central dispatch or another Unit should utilize the following resources before transmitting on the radio:
 - A) MDTs
 - B) Cell phones
- Communicating with another Unit on the main dispatch channel should be the last resort; however, if this is necessary, the Unit must request permission from Central before attempting to contact another Unit. Example – “Central from Training 1, permission to go direct”.
- Alarm Testing
 - A) The code official (Fire Inspectors and Deputy Fire Marshals) will notify the fire console telecommunicator by phone of their alarm test.
 - B) The code official will request that Units not be dispatched and a high-end PS channel.
 - C) The telecommunicator will notify the code official on the PS Channel of the type of alarm, address, and time of alarm.
- Changing response areas can be accomplished by one of the following methods via the MCT
 - A) Log out of the MCT software and log back in and change the beat on the login screen.
 - B) Send a message to Central via MCT (FIRE1 and FIRE2).

5.15.1- Routine Radio Traffic:

Routine radio traffic should be the most common communication performed on the emergency scene. In most instances, routine radio traffic should only be initiated by the IC.

Command must structure all routine radio traffic using the Order Model.

Once a Unit is assigned into the hazard zone, they should maintain radio silence unless they are contacted by Command.

All communication that details the routine work that Units perform in their assigned work areas should be done face-to-face and must not be transmitted over the PS channel. The purpose of this policy is to eliminate all “good news” reporting over the PS channel. This includes:

- Knock downs
- No extension reports
- Primary “All-Clears”
- PAR's

This policy does not eliminate a Unit's responsibility to contact the IC with:

- Fire control reports
- Status changes
- Roof reports
- Priority traffic

Command may also order a Unit to “get back to them” as soon as an information target has been obtained or verified. Unit's contacting Command with an IC information request that results in good news, should structure their report as a standard CAN Report using the Order Model (example; “Command from E-1 with a CAN Report”). Information requests that result in bad news to the IC should be structured as priority traffic (covered later in the section).

5.15.2 Special Circumstances/Storm Mode

- During severe weather or other emergency scenarios, a BC/Shift Commander may deem it necessary to request that Central switch to “storm mode”. The telecommunicator will announce on ALPHA 1 Primary, “Attention all stations, Central is operating in storm mode”.
- Storm mode dictates a single company response to all incidents where fire and/or smoke are not noted. Structure fire responses will remain full alarm assignments. The BC/Shift Commander may modify any response when necessary.
- Once the BC/Shift Commander, or their designee, who made the storm mode request has deemed responses to be at a normal volume, they may request Central to return to normal dispatch mode. The telecommunicator should then make an announcement, “Central is returning to normal dispatch mode”.

5.15.3 – Fire Control Reports

Blue Card has a no-good news reporting policy – but a major offensive incident action planning benchmark for the IC is when the operation achieves the “Fire Control” benchmark. The Fire Control Benchmark Report represents a major shift in the overall focus of the operation going from a water application, fire control mode, to a focus on ventilating the structure followed by secondary searches.

“Fire Control” will be transmitted when the main body of fire has been extinguished and all seven (7) sides of the fire have been confirmed as having no fire extension (or when extension has been controlled) in an assigned Unit’s geographic/operational area.

5.15.4 - Status Changes

A status change is defined as: moving from an assigned work location to a different geographic work location or exiting the structure to recycle or rehab.

Status changes should be given as soon as possible, but the sender must use the Order Model to structure the report. When clearing the IC with a status change, the sender should start the communication with a “status change”. Example: “Command from E-1 with a status change”.

If a Unit has completed their entire work assignment, they should contact Command with a status change and request another assignment. Example; “Command from E-1 with a status change” -” Engine 1 has a primary all-clear, there is no fire extension to the Division 2 or the attic space, we are at 75% air, and our NEED is to be reassigned”.

A status change report should be made as soon as possible if a Unit is unable to gain access to an assigned work area (access or building arrangement). Example; “Command from E-2 with a status change” – “E-2 has it made it to the Charlie side and there is no access to the interior from the Charlie side. Our NEED is to be reassigned”.

5.15.5 - Roof Reports

Truck Co.’s have the apparatus and equipment (ground ladders/power tools) to access and operate on the roofs of most mid-level structures. These Units can provide very valuable tactical information to the IC and the rest of the troops about what is going on above interior operating units.

A company assigned to the roof will make the following assessment (Size-Up) of the roof:

- Type of roof if not easily identified from the ground (peaked, flat, bowstrung, etc.)
- Stability of the roof (stable, unstable)
- Fire or smoke conditions and their location on the roof
- Location of any firewalls
- Unusual heavy roof loads (if present)
- Conditions in the attic (if known)
- Basic blueprint of the building if unusual

Any roof report containing significant tactical information should be given to the IC shortly after the roof company has made access to the roof and has obtained the information. The sender must use the Order Model to structure a standard report. When clearing the IC with a standard roof report, the sender should start the communication with; "roof report". Example: "TRUCK 1 to Command with a roof report".

Reports from the roof containing any of the following information should be structured as priority traffic and should be made as soon as possible:

- Unstable roof
- Eminent collapse potential
- A locally identified hazardous roof structure (bow stung, etc.)
- Working fire in the attic space

5.15.6 - Priority Traffic Reports

Once a Unit is assigned into the hazard zone, they should maintain radio silence, and wait to be contacted by the IC. The following are examples of the ONLY instances where a Unit can break radio silence. These transmissions should be structured as Priority Traffic Reports (example: "Command from ENG 1 – Priority Traffic") and they MUST be transmitted as soon as the information is obtained:

- Unable to complete a critical assigned task/tactical objective
- Urgent need to be reinforced/backed-up to complete an assigned task/tactical objective
- Victims encountered
- Working concealed space fires not easily controlled by the locating Unit
- A roof report that includes: attic fire, unsafe roof structure, eminent collapse threat
- Sudden, significant incident events (flashover, back draft, collapse)

All Priority Traffic Reports are to be direct to and acknowledge by the IC. Having the Alarm/Dispatch Center acknowledge Priority Traffic Reports will greatly slow down the IC's ability to quickly readjust their IAP and/or Strategy based on these reports.

Unit/members with priority traffic are allowed to break into the Order Model of routine radio traffic to deliver their priority traffic report. Once the IC has acknowledged the priority traffic report, they should conclude their radio transmission with the Unit whose traffic was broken into.

All communications that details the routine work we perform in our assigned areas should be done face-to-face in the work area and must not be transmitted over the PS channel. Wait for the IC to contact you if you don't have bad news (the above list). Mayday communications are in a separate category and will be covered in the Tactical Operations section of the manual.

5.16 - Emergency Traffic

Emergency traffic should only be used for true emergencies. The improper, over use of emergency traffic at emergency scenes tends to diminish the overall effect it has on the operation.

The IC is the only person who can initiate an Emergency Traffic Report. Companies operating in and around the hazard zone will contact the IC with priority traffic reports and the IC will determine the need for emergency traffic and the corresponding tones. When emergency traffic is given, the IC will contact Central directly to initiate the report. Once emergency traffic has been requested, Central will immediately activate the emergency traffic tones. It is very important to get the emergency traffic tones transmitted as soon as possible. The sooner they are activated, the sooner the IC and all other affected Units can initiate corrective action(s).

The emergency traffic report should be structured in the following manner:

- The IC will contact the Central directly and ask for emergency traffic
- The Central will sound the emergency traffic tones
- The IC will deliver the emergency traffic radio report
- Once the report has been given, Central will repeat the emergency traffic report verbatim on the channel it was given on

Example:

- IC - "Central from Command, emergency traffic"
- Central sounds the emergency traffic tones
- Central - "Go ahead with your emergency traffic Command"
- IC - "All Units from Command, we are going defensive on this structure. All Units operating in the fire structure, exit the structure and report PAR's upon exiting"
- Central - repeats Command's radio traffic verbatim

Emergency traffic will receive the highest communications priority from the Central and the IC. All other Units operating at the incident site will maintain radio discipline until the emergency traffic has been cleared by the IC.

Once the situation that caused the Emergency Traffic has been mitigated (PAR's obtained, power shut off, etc.) the IC should contact Central and clear the Emergency Traffic with a brief report stating why. Example; "Central from Command"

5.17 - Offensive to Defensive Strategic Shift

When the offensive strategy is chosen on our initial arrival, most of the time, a well-placed initial attack solves the incident's problem. But there are many times (for many reasons) that our initial, and sometimes re-enforced attack efforts, do not solve the incidents problems and conditions continue to deteriorate to the point where the critical factors indicate switching from an offensive to a defensive strategy.

IC's must be very pessimistic in these types of situations, especially if the structure has a primary "All Clear". Command must change strategies before the building is disassembling itself due to structural damage. When this happens, Command is very late in the strategy shift and on the receiving end of the building's decision governing the new strategy. The IC must be the single person to make the defensive decision, NOT the building coming apart.

The announcement of a change to a defensive strategy will be made as follows:

- Clear Dispatch – Ask for Emergency Tones/Traffic
- Emergency Tones transmitted
- Announce to all hazard zone Units:
- Shifting to the Defensive Strategy
- All Unit's "Exit" or "Abandoned" the structure
- All Unit's report PAR's upon exit
- Dispatch/Alarm repeats Emergency Traffic report - verbatim

"Exit the Structure" will be defined as: an orderly withdrawal where interior lines and equipment will be withdrawn and repositioned/shut down when changing to a defensive strategy.

"Abandoned the Structure" will be defined as: an emergency retreat where all hose lines and heavy equipment will be left in place and all members in the hazard zone will exit the structure as quickly and as safely as possible.

A PAR (Personnel Accountability Report) shall be obtained for all Units exiting the hazard zone after any switch from an offensive to a defensive strategy.

Commands greatest priority once a strategic shift has been initiated is the safe exit of all Units located in the hazard zone. Level 1 Staged Units and other Units working outside the hazard zone shall maintain radio silence until all PAR's have been tallied (unless they have priority traffic).

Company Officers will account for their crews and advise their S/D/G Officers or Command on the status of their crew upon exiting. S/D/G Officers will notify Command of the status of the individual crews assigned to their S/D/G Officers upon their exit.

6.0 - Command Function #6: Organization

The primary objective of Command Function #6 is to establish an effective incident organization by utilizing the division system to decentralize and delegate tactical responsibilities. This function focuses on maintaining control of the scene, ensuring safety, and facilitating smooth operations.

This section will emphasize managing and expanding the incident organization's Tactical Level (hot/warm zone). For details on managing the Strategic Level (Command Post and overall strategy), refer to Section 8—Continue, Support, and Terminate Command.

6.1 - Organizational Levels

Incident operations are structured around three distinct levels, each with specific roles and responsibilities:

1. Strategic Level:

- Managed by the IC (or Command Team) from a stationary Command Post (CP).
- Focuses on determining the overall strategy, developing the Incident Action Plan (IAP), and ensuring the completion of tactical priorities.
- The IC coordinates overall operational control to achieve incident objectives.

2. Tactical Level:

- Tactical responsibilities are decentralized through the assignment of **Divisions, Sectors, or Groups (S/D/G)**.
- S/D/G Officers supervise resources in specific geographic areas or assigned functional tasks.
- Tactical assignments are made directly by the IC and align with the IAP.

3. Task Level:

- Represents the operational level where assigned units perform specific tasks.
- Company officers manage task-level activities directly by overseeing their crews within the hazard zone.
- This is the **most critical level** because work occurs in the Immediate Danger to Life and Health (IDLH) environment, which requires unwavering support from the Strategic and Tactical Levels.

Summary: All activities at the Strategic and Tactical Levels are designed to support the Task Level, ensuring firefighter safety and incident resolution.

6.2 – Fast-Attacking ICs (IC #1)

In most local incidents, the first arriving officer (typically from an Engine Company) assumes the role of the **initial Incident Commander (IC #1)**. This Fast-Attacking IC is responsible for managing all three operational levels:

1. Strategic Level:

- Assume command, conduct size-up, and establish the initial strategy.
- Begin developing the IAP and implementing incident priorities.

2. Tactical Level:

- Assign and deploy initial resources to address critical incident factors.
- Supervise the execution of the IAP to facilitate the completion of tactical priorities.

3. Task Level:

- Directly supervise and assist their crew in resolving the incident's problems.

The Fast-Attacking IC may assign 2-3 subsequent arriving units to support the IAP. This coordinated attack is often sufficient for more minor incidents to eliminate hazards, negating the need for further organizational upgrades.

Upgrading Strategic and Tactical Levels

For escalating incidents or those with significant scope, the IC must expand and upgrade the Strategic and Tactical Levels. When a Command Officer (IC #2) arrives, they assume command from the Fast-Attacking IC, taking over the **Strategic Level** responsibilities. This transfer improves the overall command structure by enabling:

- Enhanced management of the **eight Functions of Command**.
- Increased focus on strategic safety across the incident.
- Greater control and coordination of the IAP and tactical priorities.

6.3 - Subdividing the Incident Scene

To maintain control and ensure safety, the IC must anticipate the need to subdivide the scene into smaller, more manageable tactical areas. This is essential to prevent exceeding the IC's span of control as more units arrive.

Subdivisions are typically based on **geography (Divisions)** or **functions (Groups)**:

- **Division:** Refers to a geographic area, such as "Division Alpha" (the Alpha side of the structure).
- **Group:** Refers to a functional assignment not tied to a specific location, such as "Ventilation Group."

In most cases, **Divisions** are used within the hazard zone, as they align geographic accountability with the tactical objectives (Search/Rescue, Fire Control, and Loss Control).

ICS/NIMS Terminology

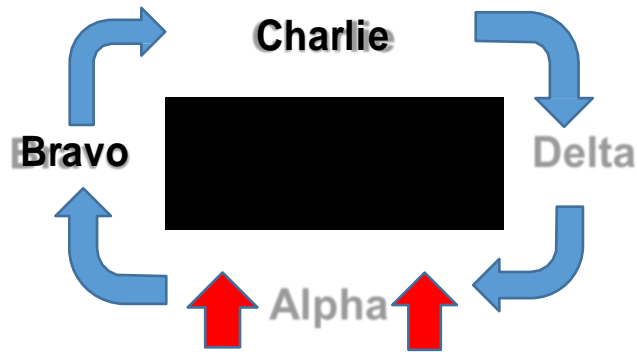
- Divisions = Geographic areas.
- Groups = Functional areas.

Important: All units must be assigned to a specific geographic area within the hazard zone to ensure accountability and completion of tactical priorities. Groups are generally reserved for functional tasks outside the hazard zone.

Establishing Geographic Landmarks

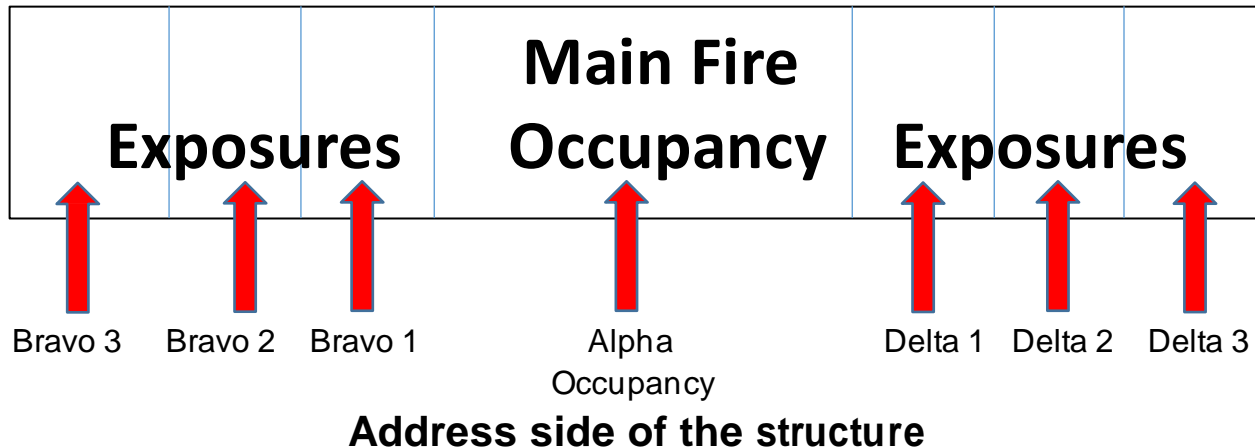
The **Alpha side** of a structure is usually the address or street-facing side. However, when the Alpha side is unclear, the initial IC must designate and communicate its location to eliminate confusion.

Geographic Landmarks: The Alpha side of the structure is "usually" the address, street side. There will be many situations where it is not clear where the Alpha side is. In situations where there is any confusion on the incidents landmarks, initial arriving IC's must make it clear where the Alpha side is located.



**Address side of the
structure**

Exposures: We identify exposed structures to the main fire occupancy by the side they are on starting with the closest, moving to the next exposure and so on. When the IC can give the exposure number and the occupancy type/apartment number it greatly enhances our directional sense of awareness.



6.4 - Forecasting and Establishing Geographic & Functional Responsibilities

The IC must anticipate how the incident will evolve and proactively divide the hazard zone into manageable tactical areas, assigning geographic and functional responsibilities early in the incident. Anticipating the need for subdivisions, rather than reacting in a crisis, ensures a more effective and organized response.

Benefits of Early Subdivision

- **Improved Control:** Reduces the IC's span of control, allowing more focus on strategic decision-making.
- **Streamlined Communications:** Minimizes unnecessary radio traffic by delegating responsibilities to tactical supervisors.
- **Enhanced Accountability:** Supports a robust accountability system for all operating units.
- **Effective Resource Management:** Ensures tactical direction and leadership are positioned where the work occurs.
- **Improved Safety:** Increases firefighter safety by placing supervisors responsible for managing personnel in hazard zones.

When Subdivisions are Needed

Offensive fires are often resolved quickly, typically within 20 minutes. However, certain incidents may require extended or large-scale operations where subdivisions are essential:

- Fires in multi-unit residential buildings with concealed space extension or adjoining units.

- Highly compartmentalized structures with attic or concealed space fires.
- Large area, sprinkler-controlled fires generating cold smoke.
- Defensive operations involving offensive positions in exposure structures.
- Mid- and high-rise compartmentalized structures requiring prolonged engagement.

The IC must assess the scope of the event and call for additional resources to establish subdivisions and maintain control. For escalating incidents, the Strategic and Tactical Levels must be supported by additional resources, including response chiefs from greater alarms, to maintain effective operations.

6.5 - Company Officer: Hazard Zone Tactical Supervision

During the initial phases of an incident, the IC may assign the first arriving Company Officer to assume temporary Division, Sector, or Group (S/D/G) responsibilities. This early delegation ensures the IC remains ahead of the deployment process and allows for immediate supervision of resources in specific areas.

When Assigning S/D/G Responsibilities

The IC must communicate:

1. **Location or Function:** Define the geographic or functional assignment.
2. **Name:** Assign an appropriate S/D/G designation.
3. **Tactical Objectives:** Specify the tasks to be completed.

Company Officer Responsibilities

Upon arrival at their assigned area, the Company Officer acting as the S/D/G Officer must:

- Assess critical factors within the area of responsibility.
- Notify Command immediately if defensive conditions exist, prompting a potential strategy shift.
- Provide early condition reports to help the IC forecast and adjust strategies or action plans (IAP).

Condition Reports (CAN): The S/D/G Officer should include:

- Conditions in the assigned area.
- Current actions being performed.
- Tactical objectives achieved.
- Needs assessments or "No Needs."
- Significant safety concerns.

Example CAN Report:

"Division Alpha to Command: Conditions are heavy smoke with active fire in the attic. We are

performing primary searches and fire suppression. All clearances are not yet completed; additional personnel are needed for fire control.”

6.6 - Command Officer: Hazard Zone Tactical Supervision

When Command Officers assume S/D/G responsibilities, tactical supervision is elevated, enhancing firefighter safety. This transition allows the IC to focus on strategic management while tactical and embedded safety requirements are handled at the Division level.

Assigning Command Officers

The IC should provide:

- The S/D/G location or function.
- Tactical objectives for the assigned area.
- Units currently working in the area.
- Identification of any existing S/D/G Officer being replaced.

Upon assuming responsibility, the Command Officer must:

- Position themselves just outside the hazard zone to oversee operations.
- Use the Passport Accountability System to manage resources and personnel in their S/D/G.
- Supervise, coordinate, and provide progress reports to the IC.
- Monitor firefighter safety, including SCBA air supply and work cycles.

Span of Control: A Command Officer can effectively manage 4-5 companies within their assigned area. If additional resources are required, subsequent arriving officers should assume supervisory roles to maintain control and safety.

6.7 - Hazard Zone: Tactical Level Supervision Guidelines

S/D/G Officers are responsible for ensuring their plans align with the IC's overall strategy. They must:

- Continuously assess critical factors and adjust their IAP to match conditions.
- Maintain a balance between air supply and work requirements to manage firefighter operations safely.
- Request resources early to sustain operations and maintain tactical reserves.

Three-Deep Deployment Model

The IC should aim to implement the "3-Deep" deployment model:

1. **Working Crews:** Actively engaged in operations.
2. **On-Deck Crews:** Positioned to relieve working crews as they rotate out.
3. **Tactical Reserves:** Staged and ready to deploy as needed.

This model ensures a steady flow of personnel, reduces radio traffic, and enhances communication by enabling face-to-face briefings between crews, S/D/G Officers, and the IC.

6.8 - Hazard Zone: Defensive Tactical Level Supervision

The defensive strategy prioritizes firefighter safety. No firefighter should be injured during defensive operations.

Defensive Strategy Key Points

- Establish a clear perimeter and collapse zone. Use hazard zone tape to prevent “creeping” and ensure personnel safety.
- Identify and protect exposures, both immediate and anticipated.
- Shut down small handlines that are not essential for exposure protection and prioritize master stream devices for large water applications.

7.0 - Command Function #7: Review, Evaluate, and Revise

Major Goal

The primary objective of Command Function #7 is to confirm that the current strategy and Incident Action Plan (IAP) align with the incident's tactical requirements and adequately ensure worker safety. Continuous assessment of operational effectiveness ensures that the strategy and IAP remain dynamic, adaptive, and aligned with changing incident conditions.

Overview

Effective incident management begins with a structured, standardized approach from the onset. The IC's adherence to the initial command functions establishes a foundation for systematically evaluating and adjusting strategies and plans. The ongoing review ensures that operational positions and actions consistently match the incident's evolving conditions.

7.1 - Execute Command Functions in Standard Order

The initial IC (IC #1) must perform the first five Functions of Command within the initial minutes of the incident to establish control and lay the groundwork for effective operations. These functions occur in a natural order and form a reliable framework for managing the scene:

1. **Control the Incident:** Assume command and establish a structured system.
2. **Determine Strategy and Develop an IAP:** Decide on the appropriate approach to address the incident and formulate a plan of action.
3. **Manage Communications:** Facilitate clear, concise, and effective incident communications.
4. **Request and Assign Resources:** Identify resource needs and deploy units accordingly.

5. **Decentralize Management:** Assign Sector/Division/Group (S/D/G) officers to delegate tasks and reduce the IC's span of control.
6. **Review and Revise Operations:** Continuously evaluate performance and adjust the strategy and IAP to match incident conditions.
7. **Transfer Command:** Transfer command to a higher-ranking or better-positioned officer when appropriate.
8. **Achieve Tactical Priorities:** Ensure completing life safety, incident stabilization, and property conservation goals.
9. **Terminate Command:** Conclude operations and document the event when the incident is resolved.

The IC establishes a robust framework for managing initial and ongoing operations by adhering to this sequence.

7.2 - Strategic Decision-Making Model

The Strategic Decision-Making Model provides a systematic approach for evaluating and aligning incident strategy, tactical priorities, and the IAP with real-time conditions. This model includes three critical elements:

1. **Critical Fireground Factors:** Constantly assess the factors influencing the incident, such as fire behavior, structural stability, and resource availability.
2. **Risk Management Plan:** Balance operational risk with anticipated benefits. Prioritize firefighter safety while striving for tactical objectives.
3. **Strategic Alignment:** Ensure the current strategy, tactical priorities, and IAP remain consistent with incident conditions.

Key Considerations:

- Continual reassessment of conditions ensures alignment between actions and outcomes.
- Strategic decision-making enhances both the response's effectiveness and personnel's safety.

7.3 - Early Implementation of Command Elements

The successful review and revision of strategies rely on early implementation of the following command system elements:

- **Standard Operating Guidelines (SOGs):** Establish procedural consistency across operations.
- **Comprehensive Size-Up and Risk Management Plan:** Clearly understand the incident's scope and hazards.

- **Standardized Strategies and Action Planning:** Ensure all actions align with predefined objectives.
- **Command Positioning:** Position the IC strategically, ideally outside the hazard zone, to maintain situational awareness.
- **Effective Communications:** Establish clear, reliable communication channels among all participants.
- **Division Assignments:** Delegate tactical oversight to S/D/G officers as needed.

The review process builds on the foundation established during initial operations, enabling seamless mid-incident adjustments.

7.4 - Receive and Evaluate CAN Reports

The IC's ability to review, evaluate, and revise strategies depends on continuous updates from the field. These updates include Condition, Action, Needs (CAN) reports and visual size-ups.

- **Visual Size-Up:** Provides the IC with direct observation of conditions. While IC #1 in a fast-attack mode may have limited visibility, a strategically positioned IC in a Command Post (CP) typically observes at least two critical sides of the incident.
- **CAN Reports:** Tactical supervisors and operating units provide critical updates about:
 - Incident progress.
 - Completed tactical priorities.
 - Emerging challenges or unknowns.

This information allows the IC to monitor conditions and determine whether the current strategy effectively resolves the incident or requires adjustment.

7.5 - Strategic and Action-Plan Review Checklist

The IC should regularly review key elements to ensure the strategy and IAP remain effective. Use the following checklist:

1. **Firefighter Safety:** Are personnel safe, and are safety measures sufficient?
2. **Strategy Alignment:** Does the current strategy match the conditions?
3. **Attack Location:** Are resources positioned effectively?
4. **Attack Size and Effectiveness:** Is the attack sufficient to meet tactical objectives?
5. **Search Completion:** Have all affected areas been searched thoroughly?
6. **Timing and Support:** Are resources deployed and supported appropriately?
7. **Backup Resources:** Are adequate backup resources available?

8. **Resource Adequacy:** Are additional resources required to meet evolving needs?
9. **Contingency Planning (Plan B):** Is there a backup plan in case the current strategy fails?
10. **Completion of Tactical Priorities:** Has fire control, all-clears, and loss-stopped been achieved?

Initial IAP Foundation:

The first IAP is often established during the Initial Radio Report (IRR). It sets the stage by describing the problem, defining the strategy, outlining initial actions, and identifying the IC. In many cases, effective execution of this initial IAP, combined with assigning 2-3 additional units, resolves the incident.

7.6 - Strategy Transitions and IAP Revisions

After implementing the initial attack, incident conditions will evolve in one of two ways:

1. **Conditions Improve:** Resources effectively mitigate the problem.
2. **Conditions Worsen:** The current plan is insufficient or ineffective.

The IC must quickly evaluate resource effectiveness and determine the appropriate course of action:

- **Reinforce Existing Positions:** Add resources to strengthen current tactics.
- **Establish New Positions:** Redirect efforts to address unmet needs.
- **Change Strategy:** Transition from offensive to defensive operations if conditions dictate.

Strategic Transition Considerations:

- Assess whether available resources can address the problem within a reasonable timeframe.
- Account for the time needed to evacuate personnel safely if transitioning to defensive operations.
- Monitor incident progression closely to ensure timely decision-making.

8.0 - Command Function #8: Continue Support & Terminate Command

Major Goal

The primary goal of Command Function #8 is to ensure the Incident Commander (IC) has sufficient support to effectively manage the required units and resources for the duration of the incident. This includes achieving tactical priorities, protecting workers in the hazard zone, and safely concluding incident operations.

The IC's ability to oversee command operations throughout the event is critical to the incident's overall success. Each tactical situation presents unique elements that influence the operation's length and intensity, requiring continuous evaluation and adaptation.

8.1 - Assume, Maintain, and Upgrade an Effective Command Position

Most incidents begin with a Company Officer (IC #1) in a fast-attack command position. This initial phase concludes when the incident is resolved or when command is transferred to a later-arriving officer who can operate from a stationary Command Post (CP). The command structure is further reinforced as additional Chief Officers arrive and fill key positions.

Key Command Support Positions:

1. **Sector/Division/Group (S/D/G) Officers**
2. **Support Officer (SO)**
3. **Senior Advisor (SA)**
4. **Branch Officers**
5. **Section Officers** (e.g., Logistics, Operations)

As the incident evolves, the CP should expand naturally to accommodate growing needs. This typically culminates in operations from a Mobile Command Unit (MCU), allowing the Command Team to function at maximum efficiency.

8.2 - Use Standard Command Transfers

Effective command hinges on systematic and timely command transfers. These transfers ensure continuity and allow the IC to focus on the eight Command Functions and the corresponding safety requirements.

- **Upgrading Command:** The first arriving Chief Officer assumes command if:
 - A hazard zone is active.
 - Tactical benchmarks are still in progress.
- **De-escalating Command:** Once hazards are eliminated and tactical priorities are achieved, command can be transferred back to a Company Officer or other personnel remaining on scene.

De-escalation Steps:

1. Ensure all tactical priorities are completed.
2. Verify that no hazard zones remain.
3. Match the command level to the current situation using the same systematic process applied during escalation.

8.3 - Develop and Maintain Effective Fire Ground Communications

Communication efficiency depends on the IC's command position and available support:

- **Fast-Attacking IC:** This type operates via a portable radio but can only manage a single channel, making it the least effective communication position.
- **Stationary IC (Unsupported):** Provides improved communication but is limited to one channel.
- **Stationary IC (Supported)** Is the most effective position, enabling the use of multiple channels and a comprehensive support system.

A robust communication structure ensures the IC remains in constant, undistracted contact with units operating in the hazard zone, enabling real-time updates and adjustments.

8.4 - Sharing Pertinent Information

The IC must gather and disseminate all critical incident information to maintain an accurate, updated Incident Action Plan (IAP). This includes:

- Monitoring overall operational progress from the CP.
- Receiving updates from S/D/G Officers and other tactical supervisors regarding:
 - **Critical factors**
 - **Tactical priority completion**
 - **Emerging hazards or unknowns**

Information affecting operational areas or firefighter safety should be communicated promptly via priority or emergency traffic reports.

8.5 - Estimate Time Required for Tactical Priorities

The IC must estimate the time needed to complete tactical priorities and allocate resources accordingly:

- Assess the timeframes and personnel requirements for each priority.
- Request additional resources and command elements in advance to meet anticipated needs.

Accurate time and resource forecasting enables the IC to structure operations effectively and avoid delays.

8.6 - Estimate Command Duration

The IC should quickly evaluate the expected duration of incident operations and scale the command structure to meet ongoing demands. Factors influencing duration include:

- Incident complexity.
- Intensity of operations.
- Stress levels for personnel in hazard zones.

For extended incidents, a rotation schedule should be developed for Command Team members and other staffing positions to prevent fatigue and maintain operational effectiveness.

8.7 - Build and Sustain an Organization That Outlasts the Incident

As the incident escalates, additional arriving Chief Officers should fill key positions within the organizational structure:

- **S/D/G Officers** to oversee tactical areas.
- **Command support roles** to assist the IC.

This structured approach enhances:

1. **Safety:** Reduces individual workloads and mitigates risk.
2. **Span of Control:** Ensures manageable oversight for all operational areas.
3. **Communication:** Improves clarity and consistency.
4. **Accountability:** Strengthens resource tracking and personnel management.
5. **Operational Management:** Facilitates efficient handling of all divisions and sectors.

8.8 - Establishing a Command Team

A Command Team ensures that complex incidents are managed efficiently and safely. This team, built from the ground up, reinforces the IC and supports decision-making.

Core Command Team Roles:

1. **Incident Commander (IC):** Focuses on strategic-level management, hazard zone safety, and the overall execution of the IAP.
2. **Support Officer (SO):** Assists the IC by:
 - Recommending IAP adjustments.
 - Monitoring tactical priorities and incident safety.
 - Assigning logistics responsibilities.
 - Tracking resources and accountability.
3. **Senior Advisor (SA):** Provides oversight, guidance, and long-term planning:
 - Reviews and evaluates the IAP and organizational structure.
 - Recommends expansion or modification of the command organization.
 - Serves as the primary liaison with external agencies and stakeholders.

When these roles are integrated, the Command Team operates as a unified entity, ensuring strategic-level focus and effective delegation of tactical and task-level responsibilities.

8.9 - Transitioning to Incident Termination

As tactical priorities are achieved and hazard zones are eliminated, command can begin transitioning toward termination:

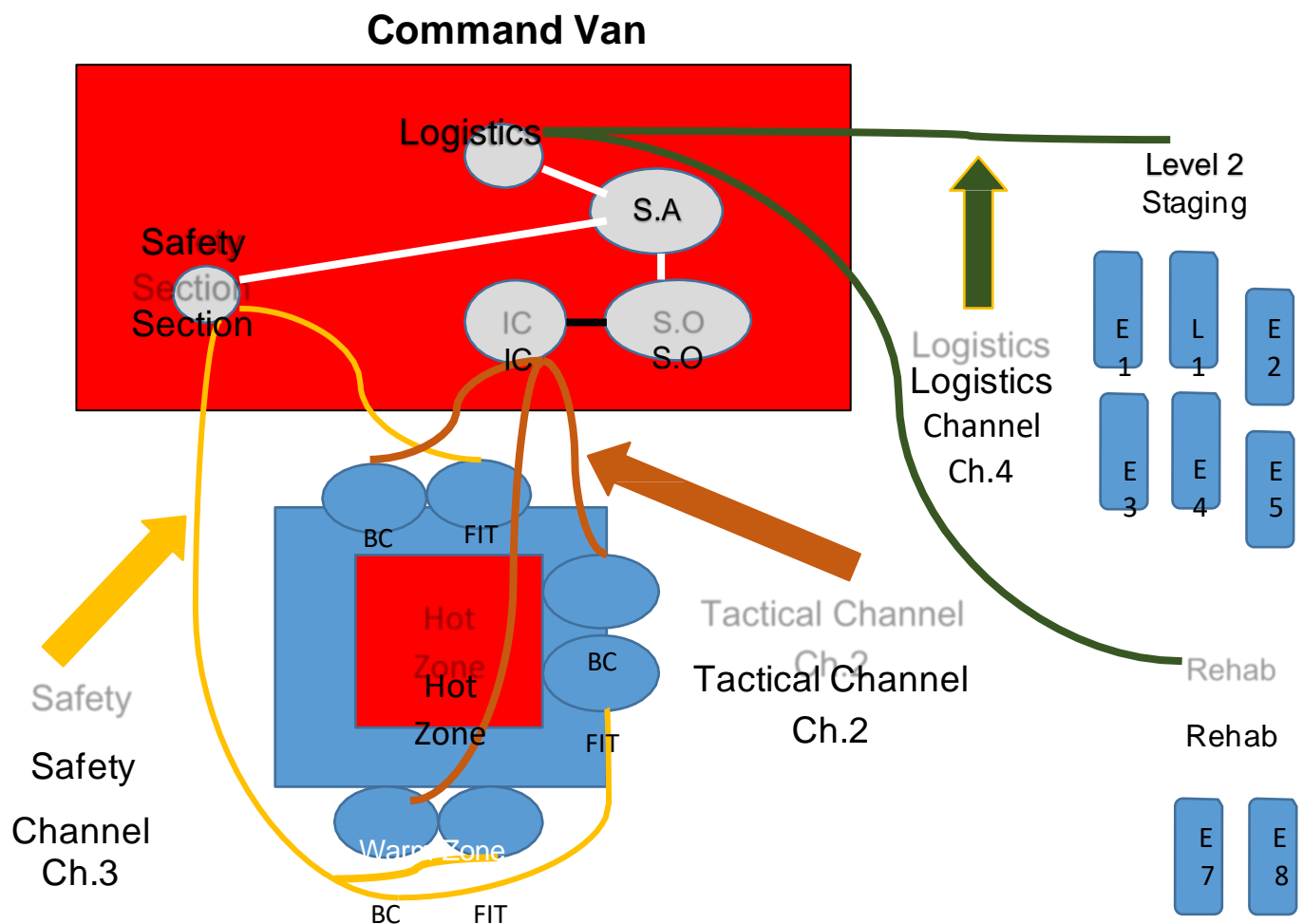
1. Shift the focus to post-incident activities, such as investigation, personnel rehab, and resource recovery.
2. Scale down the command structure in alignment with the reduced complexity of the operation.
3. Conduct a thorough post-incident review to document actions, outcomes, and areas for improvement.

The Incident Commander (IC) should use the radio designation "Command" and will typically be the only member of the Command Team communicating directly on the tactical radio frequency (hazard-zone channel).

To remain effective, the IC and Command Team must operate at the strategic level. If they become involved in tactical or task-level activities, the overall management of the incident may be compromised. The Command Team should leverage the various components of the incident organization to delegate detailed management and escalate operations as needed.

The command team's primary focus is ensuring the safety and efficiency of workers operating within the hazard zone. This includes coordinating and providing technical support, such as Special Operations, Hazmat, or Technical Rescue.

Additional Command Staff may be required to manage supplementary organizational positions for large-scale or complex incidents. Utilizing a Mobile Command Unit (MCU) can enhance communication and facilitate effective incident strategy and management. A well-structured Communications Plan should be developed to support incident operations, ensuring clear and efficient coordination.



8.9 - Sections and Branches

The primary objective of the Command Team is to manage personnel working within the hazard zone while ensuring appropriate technical support (e.g., Special Operations, Hazmat, Technical Rescue).

Expanding the Command Staff may be necessary for large or complex incidents to accommodate logistical, planning, and administrative demands. This includes filling safety and branch officer roles as needed. The Strategic Level of Command may become overwhelmed as incidents increase in duration, size, and complexity. To avoid this, Section-level positions can be implemented to streamline operations. These positions include:

- **Operations**
- **Logistics**
- **Planning**
- **Finance and Administration**
- **Safety**

Expanding the incident organization through Sections and Branches allows the IC and Command Team to delegate responsibilities effectively and focus solely on managing resources in the hazard zone.

8.9.1 - Operations Section

The Operations Section manages tactical priorities, personnel accountability, and the safety and welfare of those working within the hazard zone. Communications are conducted over the tactical radio channel, focusing on the strategic objectives provided to Sector/Division/Group (S/D/G) or Branch Officers.

Roles and Responsibilities:

- Coordinate activities with the Senior Advisor.
- Implement the Incident Management Plan.
- Assign units to S/D/G or Branches based on tactical objectives.
- Develop an effective organizational structure using S/D/G and Branches.
- Provide tactical objectives for S/D/G or Branches.
- Manage activities within the Operations Section.
- Ensure personnel accountability and life safety.
- Determine resource needs and request additional resources.
- Provide information for After-Action Reviews.

The Operations Section Officer should remain in the Command Post (CP) and maintain the "Command" designation while overseeing hazard zone operations.

8.9.2 - Logistics Section

The Logistics Section provides essential services and supplies to support all organizational components involved in the incident. This section operates on a separate radio channel.

Roles and Responsibilities:

- Provide rehab and manage staging.
- Supply equipment and forecast future resource needs in coordination with Planning.
- Manage communications equipment, fuel, repairs, and specialized tools.
- Arrange food, facilities, and other logistical support as requested by Command.
- Supervise assigned personnel and collect information for After-Action Reviews.

8.9.3 - Planning Section

The Planning Section gathers, analyzes, and processes information to aid effective decision-making. Acting as the IC's central information hub, it streamlines data flow to the IC.

Roles and Responsibilities:

- Evaluate and recommend strategy adjustments.
- Forecast resource needs and potential outcomes.
- Monitor tactical priorities and safety concerns.
- Facilitate After-Action Reviews and liaison with external agencies.
- Refine the incident plan to address emerging needs.

8.9.4 - Finance and Administration Section

This section manages the financial and administrative aspects of the incident, including risk assessment and cost recovery efforts.

Roles and Responsibilities:

- Procure services and supplies in coordination with Logistics.
- Document financial costs for potential reimbursement.
- Assess legal risks related to the incident.
- Liaison for the IC with external entities such as regulatory agencies, legal representatives, and city officials.

8.9.5 - Safety Section

The Safety Section ensures the safety of all personnel within the hazard zone. It incorporates embedded safety measures and ensures that communication plans effectively connect all organizational elements.

8.10 - Branches

Branches are implemented to manage large-scale incidents or when Command is overwhelmed by multiple S/D/G assignments. Branch Officers coordinate and supervise S/D/G Officers, typically grouping them by function or geography.

When to Implement Branches:

- The incident is projected to require many S/D/Gs.
- The incident has multiple large components (e.g., Hazmat, Medical, Evacuation).
- The geographical scope of the incident is extensive.

Each Branch operates on its radio channel, and Branch Officers communicate with Command via a separate designated channel. When branches are activated, Command must notify S/D/G Officers of their new Supervisor and radio channel assignments.

8.11 - Provide Rehab, Rotation, and Relief for Command Staff

Extended operations require periodic rotation and relief for Command Staff and field personnel. The IC should plan to cycle staff and resources to maintain operational efficiency.

8.12 - Reducing the Command Structure

Incident operations should scale down using the same systematic approach used for escalation. As tactical priorities are achieved and operations conclude, the IC should tour the scene, assess remaining tasks, and plan for demobilization.

8.13 - Critique Process

Incident critiques are vital for improving future operations. The IC should lead critiques, focusing on SOG compliance, incident conditions, actions taken, and outcomes. Lessons learned should inform department-wide training and SOG updates.

8.14 - Demobilization Plan

The demobilization plan should prioritize relieving fatigued units while ensuring adequate resources remain on-site to meet incident needs. The IC must ensure that post-incident support services are available for affected individuals.

8.15 - Critical Incident Support

Incidents involving trauma, death, or significant loss can be emotionally challenging for responders. Post-incident reviews should include a focus on the responder's well-being, providing an opportunity to address any physical or emotional concerns before returning to service.

Appendix A - Tactical Guidelines

1.0 - 2 IN 2 OUT

OSHA 1910.134 requires that once firefighters begin interior operations on a structure fire, the atmosphere is presumed to be Immediately Dangerous to Life and Health (IDLH). When an IDLH situation exists, "2 IN 2 OUT" procedures must be implemented before entering any fire beyond the incipient stage.

1.1 - 2 IN 2 OUT Parameters

- A minimum of two (2) personnel is required to enter an IDLH environment.
- The "2 OUT" team must consist of two firefighters in full structural firefighting PPE, SCBA, and necessary tools such as a Rapid Intervention Team (RIT) bag.
- The IC may assign one of the "2 OUT" personnel additional roles, provided they can immediately perform rescue operations if needed.
- Establishing an On-Deck crew or RIT exceeds the OSHA "2 IN 2 OUT" requirement. Once in place, "2 OUT" personnel should perform duties as assigned by the IC.

1.2 - Exception Provisions to the 2 IN 2 OUT Requirement

- Immediate action may deviate from "2 IN 2 OUT" if a known life hazard exists and immediate intervention/rescue could prevent loss of life.
- Initial crews with fewer than four personnel may initiate rescue operations, continually evaluating the situation if a known life hazard exists.
- The responding Battalion Chief must be notified of any exception taken.

2.0 - Mayday Procedures

- Immediately report distress by announcing "Mayday! Mayday! Mayday!" over the portable radio.
- Provide situational details while attempting to self-rescue. Early notification increases survivability.
- Announce a Mayday as soon as you suspect trouble; delaying may reduce the chance of survival.
- Upon hearing a Mayday, all non-essential radio traffic must cease until the situation is resolved.
- The IC will assign a new radio frequency for unaffected fireground units and notify dispatch to announce the change.

- Use the **LUNAR** acronym when giving Mayday details:
 - **Location**
 - **Unit ID**
 - **Name**
 - **Assignment**
 - **Resources needed**

Note: Activate the portable radio emergency button to alert communications. This feature does not work on talk-around channels.

3.0 - Rapid Intervention Team (RIT)

- The IC should establish a RIT in addition to On-Deck crews to ensure personnel are available for rescue operations in IDLH environments.
- RIT should ideally consist of four (4) personnel and be staffed early to meet incident needs.
- Follow the RIT manual for assignment procedures.

3.1 - RIT Responsibilities

- Conduct face-to-face briefings with Command and ensure proper staffing.
- Complete a RIT-specific size-up.
- Monitor radio communications.
- Assign team responsibilities.
- Establish a tool cache and clear obstructions from exits.
- Identify and secure egress points with ladders as necessary.
- Maintain team integrity and remain in a ready posture until deployed.
- Command should not assign RIT additional duties. If activated, a secondary RIT must be established for ongoing coverage.

Note: Large structures may require multiple RITs for different entry points or levels.

5.0 - S.L.I.C.E.R.S. Transitional Attack Option

SLICERS provides a tactical framework for transitional fire attack when conditions warrant. This involves a combination of Size-Up, cooling, and extinguishment to manage fire progression.

5.1 - Size-Up

- Conduct a 360-degree assessment. Delegate unseen areas to other arriving units if necessary.
- Develop and communicate a tactical plan based on situational conditions.

5.2 - Locate the Fire

- Use all available tools, including thermal imagers, to pinpoint the fire's location and extent.

5.3 - Identify the Flow Path

- Identify and control ventilation to limit fire growth and protect occupants.

5.4 - Cool the Space from the Safest Location

- Reduce thermal threats by cooling superheated areas before making entry.

5.5 - Extinguish the Fire

- Suppress the fire directly and quickly after reducing thermal threats.

Actions of Opportunity:

- **Rescue:** Prioritize life safety and occupant removal if necessary.
- **Salvage:** Use compartmentalization to limit fire and smoke spread.

Unless otherwise noted for any call response – Proper PPE should be worn at all times

6.0 - Fire Types

Guidelines for specific fire scenarios, including dumpster, vehicle, shipboard, and structural fires, with details on PPE, scene safety, and suppression techniques.

6.1 – Trash of Dumpster Fires

- Size of dumpster (manpower intensive overhaul).
- Personnel engaged in suppression of a dumpster fire shall wear SCBA masks on air.
- Identify hazardous materials if possible.
- Evacuate structure if attached.
- Notify the responsible party.
- Special resources that may be called upon but not limited to: waste management, front-end loader, dump truck, Hazardous Materials Team, etc.

6.2 – Vehicle Fires

- Position the apparatus in the best way possible to protect the operator and firefighters from oncoming traffic.
- Personnel engaged in fire suppression shall wear full PPE and SCBA masked on air.
- Check for victims.
- Use caution with un-deployed airbags and loaded bumpers.
- Alternative fuel and electric vehicles require special consideration during fire suppression operations.

The NFPA Emergency Field Guide states that large, sustained volumes of water are required to extinguish a high-voltage battery fire which may be over 2,600 gallons, depending on the size and location of the battery. A high-voltage lithium ion battery is designed to resist water, but water is critical for cooling overheated cells to stop thermal runaway and further combustion. A fire in a high-voltage lithium-ion battery could reignite and recommends that emergency responders use thermal imaging to monitor the battery. The NFPA guide states that reignition is accompanied by “whooshing” or “popping” sound, followed by off-gassing of white smoke or electrical arcs or sparks that reignite, with visible flames. Reignition can occur within several hours to a day after the fire is extinguished. The NFPA advises firefighters to continue applying water even after then no longer see flames to continue to cool the battery pack. Reference directly to SOG 406.

6.3 - Shipboard Firefighting

- Contact the vessel's master or his/her designee.
- Make a call to the Captain of the Port.
- Maintain a defensive posture until an IAP can be formulated through Command.
- Maintain a Size-Up and begin the process of transitioning to a unified Command structure.
- Obtain the fire control plans.
- Find out what actions have been taken prior to the fire department's arrival and what actions have currently been taken.
- Call for resources early; shipboard firefighting can take four times the amount of personnel or more.
- Ensure full proper PPE with SCBA

6.4 - Fireboat Operations

- The Fireboat Captain is ultimately in charge of and responsible for the crew and vessel. All personnel shall wear proper PPE.

6.5 - Chimney Fire

- If working fire, upgrade alarm.
- All personnel shall wear proper PPE.
- Extinguish fire and remove fuel from the firebox.

- Check the flue.
- Check the attic for extension.
- Advise the occupants not to use the fireplace until it has been inspected by a certified technician.

6.6 - Odor of smoke

- Investigate, take action as required, and determine the source.
- Use a Thermal Imaging Camera (TIC) as required. Check the internal exposures.
- Personnel engaged in investigation with reported fire out shall wear full PPE and SCBA masked on air until atmospheric monitoring confirms acceptable levels.

6.7 - Fire Reported Out

- Investigate, take action as required.
- Personnel engaged in investigation with reported fire out shall wear full PPE and SCBA masked on air until atmospheric monitoring confirms acceptable levels.

6.8 - Residential or Commercial Fire Alarm or Smoke Detector

- Investigate.
- Have dispatch notify the responsible party (e.g., the key holder).
- If visible signs of smoke or fire, upgrade to full alarm or greater, force entry, provide for search operations, attack fire, and supply FD connections if necessary.
- If entry is forced or made into a structure, notify dispatch and respond a police officer for security purposes.
- The responsible party shall reset the system.

6.9 - Fire Investigator Request

- Responsibility for initiating a on call Fire Marshal response shall rest with the IC. Requesting an Investigator should be done as determined by agency policy/procedure as soon as possible and practical. Requests will be made through Central for the on-call investigator.
- A fire investigator shall be requested for the following incidents:
 - Any structure fire that the IC cannot determine origin and cause.
 - Any fire that is determined incendiary.
 - Any vehicle fire that the IC cannot determine origin and cause.
 - Any fire in which injuries or fatalities occur.
 - Any fire in which a juvenile is suspected to be involved.
 - Any incident involving explosives.
 - Any other incident deemed necessary by the IC.
- Any other calls where a fire takes place or inspection issue is visible can be emailed to the

FMO for follow-up and documentation. This includes fire watch implementation, fire cause identified, and or business-related inspection issues.

7.0 – Wildland / Woods Fire / Outside Fire

- See SOG 404 for PPE / Brush Truck Operations

7.1 – Chain Saw Use (Tree Removal / Brush Removal / Wildland / Outside Fire)

- Full Chain Saw PPE (Chaps, Gloves, Helmet, Eye Protection)

8.0 - Electrical Hazards

General and specific procedures for downed wires, transformers, and electrical service incidents. Emphasis on scene safety, utility coordination, and avoidance of direct contact with energized equipment.

8.1 - General

- Notify utility company as soon as possible and coordinate action with them. Utilize their expertise whenever there are downed lines or wires, or when electrical equipment is involved.
- When responding to an electrical incident, treat all utility lines and wires as if they are energized. Do not touch or come near downed lines, even with gloves, sticks, or tools.
- Be aware that, with the increase in home wired generators in our area, back feeding the electrical grid and energizing previously de-energized lines is a safety concern.
- Be alert in looking for downed or hanging wires as you approach the scene. Position the apparatus safely. Do not park emergency vehicles over manholes, underground vaults, or on the same side of the street as the utility pole.
- Avoid using water if extinguishment is necessary use CO2 or dry chemical.

8.2 - Transformer or Downed Wire

- Apparatus should position a minimum of two (2) poles/spans away to block the area.
- PPE to include turnout gear, helmet, gloves, and safety glasses
- Allow to burn until the power company disconnects the power.
- If any oil is noticed leaking, establish a safe zone away from the transformer.
- Imminent explosion hazards exist if the transformer still has power.
- Identify pole number or closest pole accessible.
- Severe Weather Response: It may be necessary to identify the hazard, notify the proper agency, secure the area, and return to service.

8.3 - Residential and Commercial Electrical Service

- Do not pull the meter to de-energize the power.
- PPE to include turnout gear, helmet, gloves, and safety glasses

- Because fuses present some of the same arc, flash, and electrocution potential as meters they are not to be removed to secure the power.
- Circuit breakers shall be used to shut off the power and the system shall be locked and tagged out. Electrical boxes that are tampered with or do not provide the proper shielding are not to be handled.
- Beware of split buss panels in older homes.
- Command shall notify Central and request the power company respond if further intervention is needed to secure the power during the incident.

8.4 - Ground Transformer, Substation, Switch Station, Vault and Manhole Fire

- Realize that there is no need to attempt to extinguish fires involving electrical equipment. It could BLEVE (Boiling Liquid Expanding Vapor Explosion).
- PPE to include turnout gear, helmet, gloves, and safety glasses
- Be aware of the potential for the ground becoming energized.
- Other hazardous materials such as asbestos and PCB's may also be encountered.
- Do not stand or work in areas of dense smoke around transmission and distribution lines or near electrical facilities. Smoke and particle matter can act as a conductor, causing electricity to arc from high voltage lines to the ground
- Establish a hot zone, protect exposures, and wait for the power company to arrive before taking any action.

9.0 - EMS Calls

- Follow medical protocols for patient care and scene safety.
- Minimum PPE: medical gloves and safety glasses
- Document interventions and outcomes thoroughly.
- Members shall follow appropriate medical protocols associated with patient care. For more detailed information, see Novant New Hanover Regional Medical EMS Protocols.

9.1 - Response

Review Size-Up information and begin developing an IAP.

- Don proper personal protective equipment and body substance isolation as appropriate.
- Carry all medical supplies to the patient location, no matter what agencies are already on scene.
- Follow EMS protocols.
- Gather patient information (name and birthdate minimum).
- Document what you found on arrival, what interventions you performed, and the result of those interventions.

9.2 - Arrival

- Ensure the scene is safe and remains safe throughout the incident and the crew(s) is operating safely. Stage prior to entry into the area if the scene is not secure.
- Determine if the responding resources are adequate or if additional resources are needed. Resources may include: law enforcement, rescue, truck, squad, boat/diver team, helicopter, drone, hazmat, etc.

9.3 - Motor Vehicle Crash or Extrication

- Position apparatus to protect personnel and maintain egress.
- Establish Command and include accurate size-up
- Ensure all proper PPE including Roadway Safety Vests are utilized - SOG 312
- Identify number of vehicles / Multiple vehicles.
- Additional resources needed
- Establish priorities.
- Provide initial stabilization of vehicle.
 - EMS Protocols.
- Engines will provide a cover line (minimum of 1 ¾" line)

9.4 - Elevator/Escalator and Moving Walkways

- Have Central notify responsible party and maintenance personnel.
- Secure the power source.
- Utilize elevator keys where possible.
- Consider additional resources (e.g., Technical Rescue Team for specialized equipment).
- If on fire or when using cutting tools, lay a line from a standpipe.
- Do not alter mechanical system to move elevator.

ELEVATOR

- Only attempt a rescue if an emergency exists or if mechanical problem cannot be immediately resolved.
- Full PPE should be utilized including gloves & safety glasses

ESCALATOR

- Driving unit is usually located on the upper part of the unit; emergency stop located at the bottom (lower end).
- Full PPE should be utilized including gloves & safety glasses

10.0 - Technical Rescue

Guidelines for structural collapse, confined space, trench, and rope rescue operations, emphasizing safety, resource coordination, and non-entry rescue where feasible.

All operations shall be at the appropriate level of knowledge, skills, and abilities as provided in awareness, operations, technician or specialist level training. The following tasks should be performed at the scene of all Tactical Rescue Incidents:

- Establish Command.
- Secure and isolate the area. Are there any hazards present?

- Identify and secure utilities (if possible).
- Secure responsible party (if possible).
- Evaluate the need for additional resources (e.g., rescue, ladder, fire boat, hazmat, dive team, police helicopter, etc.).
- Determine rescue vs. recovery.
- Don appropriate PPE for the situation.
- Be prepared to assist Technical Rescue personnel as needed.

10.1 - Structural Collapse

- While operating at a structural collapse take care to ensure that no personnel are committed to an unsafe structure.
- Be alert for the potential for secondary collapse.
- Control and extinguish fires.
- Establish an observation platform by positioning an aerial platform at the front of the building.
- Assign police to perimeter control and assist with victim accountability.
- Assess structural stability of adjoining structures.
- Perform initial recon (identify type of structure, use, and possible victims).
- Remove surface victims first.
- Do visual and hailing search, begin search marking system.

10.2 - Confined Space

- If possible, undertake a non-entry rescue.
- Attempt an initial contact with victim(s) non-entry.
- Deploy a reconnaissance team to evaluate opening, number of victims, and entrapment (non-entry).
- Gather information on the location, number, and position of victims.
- Obtain blueprints, maps, or sketches of the space, Confined Space Permit.

10.3 - Rope Rescue

- Contact victims with intercom or megaphone to advise help is imminent.
- Use only as a last resort – consider all other means of access and egress first.
- Gain access to a location above the patient.
- If possible, place an aerial ladder in a location where victims can be accessed.
- At the IC's discretion, either: prepare to access the victim and stabilize prior to removal; or b: await arrival of Technical Rescue Team and support as needed.

10.4 - Trench Rescue

- How deep is the trench?
- Consider the effects of vehicles/heavy equipment on the stability of the trench and spoil pile.

- Under no circumstances should anyone enter an unprotected trench.
- Approach trench from ends.
- Assess the number of victims and their location.
- Place at least one ladder into the trench for emergency egress.
- Assist victims in self-rescue if possible.
- Do not secure power to dewatering equipment unless it is posing an immediate life hazard.

11.0 - Water Rescue and Recovery

- Ensure proper PPE for water-related operations.
- Assess rescue options and determine "point last seen" for victims.
- Minimum personal protective equipment will consist of helmet, gloves, and a properly fitting personal flotation device and will be worn at all times while operating in the hot zone.
- Structural turnout gear is not recommended to be worn within 25 feet of the water's edge (the hot zone).
- Assess reach, throw, row, go options.
- Determine "point last seen" if victim is no longer visible.
- Determine time since last seen.
- PFD's shall be worn by all personnel operating within 10-feet of unprotected water.
- Evaluate the need for additional resources (e.g., rescue, ladder, fire boat, drone,
 - dive team, police helicopter, etc.).

Unless otherwise noted for any call response, Proper PPE should always be worn

6.0 - Fire Types

Guidelines for specific fire scenarios, including dumpster, vehicle, shipboard, and structural fires, provide details on PPE, scene safety, and suppression techniques.

6.1 – Trash of Dumpster Fires

- Size of dumpster (workforce-intensive overhaul).
- Personnel engaged in suppression of a dumpster fire shall wear SCBA masks on air.
- Identify hazardous materials if possible.
- Evacuate structure if attached.
- Notify the responsible party.
- Special resources that may be called upon but not limited to: waste management, front-end loader, dump truck, Hazardous Materials Team, etc.

6.2 – Vehicle Fires

- Position the apparatus in the best way possible to protect the operator and firefighters from oncoming traffic.
- Personnel engaged in fire suppression shall wear full PPE and SCBA mask on air.

- Check for victims.
- Use caution with un-deployed airbags and loaded bumpers.
- Alternative fuel and electric vehicles require special consideration during fire suppression operations.

The NFPA Emergency Field Guide states that large, sustained volumes of water are required to extinguish a high-voltage battery fire which may be over 2,600 gallons, depending on the size and location of the battery. A high-voltage lithium ion battery is designed to resist water, but water is critical for cooling overheated cells to stop thermal runaway and further combustion. A fire in a high-voltage lithium-ion battery could reignite and recommends that emergency responders use thermal imaging to monitor the battery. The NFPA guide states that reignition is accompanied by “whooshing” or “popping” sound, followed by off-gassing of white smoke or electrical arcs or sparks that reignite, with visible flames. Reignition can occur within several hours to a day after the fire is extinguished. The NFPA advises firefighters to continue applying water even after then no longer see flames to continue to cool the battery pack. Reference directly to SOG 406.

6.3 - Shipboard Firefighting

- Contact the vessel's master or his/her designee.
- Make a call to the Captain of the Port.
- Maintain a defensive posture until an IAP can be formulated through Command.
- Maintain a Size-Up and begin the process of transitioning to a unified Command structure.
- Obtain the fire control plans.
- Find out what actions have been taken prior to the fire department's arrival and what actions have currently been taken.
- Call for resources early; shipboard firefighting can take four times the amount of personnel or more.
- Ensure full proper PPE with SCBA

6.4 - Fireboat Operations

- The Fireboat Captain is ultimately in charge of and responsible for the crew and vessel. All personnel shall wear proper PPE.

6.5 - Chimney Fire

- If working fire, upgrade alarm.
- All personnel shall wear proper PPE.
- Extinguish fire and remove fuel from the firebox.
- Check the flue.
- Check the attic for extension.
- Advise the occupants not to use the fireplace until it has been inspected by a certified technician.

6.6 - Odor of smoke

- Investigate, take action as required, and determine the source.
- Use a Thermal Imaging Camera (TIC) as required. Check the internal exposures.
- Personnel engaged in investigation with reported fire out shall wear full PPE and SCBA mask on air until atmospheric monitoring confirms acceptable levels.

6.7 - Fire Reported Out

- Investigate, take action as required.
- Personnel engaged in investigation with reported fire out shall wear full PPE and SCBA mask on air until atmospheric monitoring confirms acceptable levels.

6.8 - Residential or Commercial Fire Alarm or Smoke Detector

- Investigate.
- Have dispatch notify the responsible party (e.g., the key holder).
- If visible signs of smoke or fire, upgrade to full alarm or greater, force entry, provide for search operations, attack fire, and supply FD connections if necessary.
- If entry is forced or made into a structure, notify dispatch and respond a police officer for security purposes.
- The responsible party shall reset the system.

6.9 - Fire Investigator Request

- Responsibility for initiating a on call Fire Marshal response shall rest with the IC. Requesting an Investigator should be done as determined by agency policy/procedure as soon as possible and practical. Requests will be made through Central for the on-call investigator.
- A fire investigator shall be requested for the following incidents:
 - Any structure fire that the IC cannot determine origin and cause.
 - Any fire that is determined incendiary.
 - Any vehicle fire that the IC cannot determine origin and cause.
 - Any fire in which injuries or fatalities occur.
 - Any fire in which a juvenile is suspected to be involved.
 - Any incident involving explosives.
 - Any other incident deemed necessary by the IC.
- Any other calls where a fire takes place or inspection issue is visible can be emailed to the FMO for follow-up and documentation. This includes fire watch implementation, fire cause identified, and or business-related inspection issues.

7.0 – Wildland / Woods Fire / Outside Fire

- See SOG 404 for PPE / Brush Truck Operations

7.1 – Chain Saw Use (Tree Removal / Brush Removal / Wildland / Outside Fire)

- Full Chain Saw PPE (Chaps, Gloves, Helmet, Eye Protection)

8.0 - Electrical Hazards

General and specific procedures for downed wires, transformers, and electrical service incidents. Emphasis on scene safety, utility coordination, and avoidance of direct contact with energized equipment.

8.1 - General

- Notify utility company as soon as possible and coordinate action with them. Utilize their expertise whenever there are downed lines or wires, or when electrical equipment is involved.
- When responding to an electrical incident, treat all utility lines and wires as if they are energized. Do not touch or come near downed lines, even with gloves, sticks, or tools.
- Be aware that, with the increase in home wired generators in our area, back feeding the electrical grid and energizing previously de-energized lines is a safety concern.
- Be alert in looking for downed or hanging wires as you approach the scene. Position the apparatus safely. Do not park emergency vehicles over manholes, underground vaults, or on the same side of the street as the utility pole.
- Avoid using water if extinguishment is necessary use CO2 or dry chemical.

8.2 - Transformer or Downed Wire

- Apparatus should position a minimum of two (2) poles/spans away to block the area.
- PPE to include turnout gear, helmet, gloves, and safety glasses
- Allow to burn until the power company disconnects the power.
- If any oil is noticed leaking, establish a safe zone away from the transformer.
- Imminent explosion hazards exist if the transformer still has power.
- Identify pole number or closest pole accessible.
- Severe Weather Response: It may be necessary to identify the hazard, notify the proper agency, secure the area, and return to service.

8.3 - Residential and Commercial Electrical Service

- Do not pull the meter to de-energize the power.
- PPE to include turnout gear, helmet, gloves, and safety glasses
- Because fuses present some of the same arc, flash, and electrocution potential as

- meters they are not to be removed to secure the power.
- Circuit breakers shall be used to shut off the power and the system shall be locked and tagged out. Electrical boxes that are tampered with or do not provide the proper shielding are not to be handled.
- Beware of split buss panels in older homes.
- Command shall notify Central and request the power company respond if further intervention is needed to secure the power during the incident.

8.4 - Ground Transformer, Substation, Switch Station, Vault and Manhole Fire

- Realize that there is no need to attempt to extinguish fires involving electrical equipment. It could BLEVE (Boiling Liquid Expanding Vapor Explosion).
- PPE to include turnout gear, helmet, gloves, and safety glasses
- Be aware of the potential for the ground becoming energized.
- Other hazardous materials such as asbestos and PCB's may also be encountered.
- Do not stand or work in areas of dense smoke around transmission and distribution lines or near electrical facilities. Smoke and particle matter can act as a conductor, causing electricity to arc from high voltage lines to the ground
- Establish a hot zone, protect exposures, and wait for the power company to arrive before taking any action.

9.0 - EMS Calls

- Follow medical protocols for patient care and scene safety.
- Minimum PPE: medical gloves and safety glasses
- Document interventions and outcomes thoroughly.
- Members shall follow appropriate medical protocols associated with patient care. For more detailed information, see Novant New Hanover Regional Medical EMS Protocols.

9.1 - Response

Review Size-Up information and begin developing an IAP.

- Don proper personal protective equipment and body substance isolation as appropriate.
- Carry all medical supplies to the patient location, no matter what agencies are already on scene.
- Follow EMS protocols.
- Gather patient information (name and birthdate minimum).
- Document what you found on arrival, what interventions you performed, and the result of those interventions.

9.2 - Arrival

- Ensure the scene is safe and remains safe throughout the incident and the crew(s) is operating safely. Stage prior to entry into the area if the scene is not secure.
- Determine if the responding resources are adequate or if additional resources are needed. Resources may include: law enforcement, rescue, truck, squad, boat/dive team, helicopter, drone, hazmat, etc.

9.3 - Motor Vehicle Crash or Extrication

- Position apparatus to protect personnel and maintain egress.
- Establish Command and include accurate size-up
- Ensure all proper PPE including Roadway Safety Vests are utilized - SOG 312
- Identify number of vehicles / Multiple vehicles.
- Additional resources needed
- Establish priorities.
- Provide initial stabilization of vehicle.
 - EMS Protocols.
- Engines will provide a cover line (minimum of 1 ¾" line)

9.4 - Elevator/Escalator and Moving Walkways

- Have Central notify responsible party and maintenance personnel.
- Secure the power source.
- Utilize elevator keys where possible.
- Consider additional resources (e.g., Technical Rescue Team for specialized equipment).
- If on fire or when using cutting tools, lay a line from a standpipe.
- Do not alter mechanical system to move elevator.

ELEVATOR

- Only attempt a rescue if an emergency exists or if mechanical problem cannot be immediately resolved.
- Full PPE should be utilized including gloves & safety glasses

ESCALATOR

- Driving unit is usually located on the upper part of the unit; emergency stop located at the bottom (lower end).
- Full PPE should be utilized including gloves & safety glasses

10.0 - Technical Rescue

Guidelines for structural collapse, confined space, trench, and rope rescue operations, emphasizing safety, resource coordination, and non-entry rescue where feasible.

All operations shall be at the appropriate level of knowledge, skills, and abilities as provided in awareness, operations, technician or specialist level training. The following tasks should be performed at the scene of all Tactical Rescue Incidents:

- Establish Command.
- Secure and isolate the area. Are there any hazards present?

- Identify and secure utilities (if possible).
- Secure responsible party (if possible).
- Evaluate the need for additional resources (e.g., rescue, ladder, fire boat, hazmat, dive team, police helicopter, etc.).
- Determine rescue vs. recovery.
- Don appropriate PPE for the situation.
- Be prepared to assist Technical Rescue personnel as needed.

10.1 - Structural Collapse

- While operating at a structural collapse take care to ensure that no personnel are committed to an unsafe structure.
- Be alert for the potential for secondary collapse.
- Control and extinguish fires.
- Establish an observation platform by positioning an aerial platform at the front of the building.
- Assign police to perimeter control and assist with victim accountability.
- Assess structural stability of adjoining structures.
- Perform initial recon (identify type of structure, use, and possible victims).
- Remove surface victims first.
- Do visual and hailing search, begin search marking system.

10.2 - Confined Space

- If possible, undertake a non-entry rescue.
- Attempt an initial contact with victim(s) non-entry.
- Deploy a reconnaissance team to evaluate opening, number of victims, and entrapment (non-entry).
- Gather information on the location, number, and position of victims.
- Obtain blueprints, maps, or sketches of the space, Confined Space Permit.

10.3 - Rope Rescue

- Contact victims with intercom or megaphone to advise help is imminent.
- Use only as a last resort – consider all other means of access and egress first.
- Gain access to a location above the patient.
- If possible, place an aerial ladder in a location where victims can be accessed.
- At the IC's discretion, either: prepare to access the victim and stabilize prior to removal; or b: await arrival of Technical Rescue Team and support as needed.

10.4 - Trench Rescue

- How deep is the trench?
- Consider the effects of vehicles/heavy equipment on the stability of the trench and spoil pile.

- Under no circumstances should anyone enter an unprotected trench.
- Approach trench from ends.
- Assess the number of victims and their location.
- Place at least one ladder into the trench for emergency egress.
- Assist victims in self-rescue if possible.
- Do not secure power to dewatering equipment unless it is posing an immediate life hazard.

11.0 - Water Rescue and Recovery

- Ensure proper PPE for water-related operations.
- Assess rescue options and determine "point last seen" for victims.
- Minimum personal protective equipment will consist of helmet, gloves, and a properly fitting personal flotation device and will be worn at all times while operating in the hot zone.
- Structural turnout gear is not recommended to be worn within 25 feet of the water's edge (the hot zone).
- Assess reach, throw, row, go options.
- Determine "point last seen" if victim is no longer visible.
- Determine time since last seen.
- PFD's shall be worn by all personnel operating within 10-feet of unprotected water.
- Evaluate the need for additional resources (e.g., rescue, ladder, fire boat, drone,
 - dive team, police helicopter, etc.).

12.0 - Hazardous Materials

Members shall operate at his/her level of knowledge, skills, and abilities as provided for in awareness, operations, technician, or specialist training. The following actions shall occur on all hazardous material incidents:

- Operational Guidelines allow for control, containment and/or confinement of gasoline, diesel fuel, kerosene, natural gas, and liquid propane gas within the capabilities of the available resources and personal protective equipment.
- Always be aware of wind direction, remain uphill and upwind, and pay close attention to the nature of the call.
- Determine presence of hazardous material(s): see it, dead vegetation, placarding, type of container, markings, symbols, and/or victims/patients.
- Estimate the potential for harm without intervention: EMERGENCY RESPONSE GUIDE, Haz-Mat training, and on-scene technical support.
- Choose a response option: do nothing, call Haz-Mat Team, or other agencies as

needed (Emergency Management of New Hanover County, Coast Guard, utilities etc.), set up emergency decontamination and initial hot, warm, and cold zones.

- Identify the best option: done by analyzing all information gained throughout the incident; at a minimum a hot, warm, and cold zone shall be established, as well as emergency decontamination if patients are present or personnel are required to enter the hazardous environment.
- Do best option: this is the tactic that requires the least involvement, while mitigating the hazard or preparing the scene for additional response apparatus due to the magnitude of the incident; stabilize and/or contain the substance.
- Evaluate: if the plan is working, continue, but if not, revisit the response options and correct them.
- Coordinate cleanup with the proper agencies.

12.1 – First-Due Company Actions

- Establish hot, warm, and cold zones on arrival.
- Limit investigation teams; **full, properly donned PPE and SCBA masks on air are required for all entries.**
- Reference ERG, placards, and MSDS before committing crews.
- First-arriving companies should consider HazMat Team activation early if uncontrolled leaks or complex structures are involved.

Operate within training levels and use the DECIDE model for incident management:

- **D**etermine hazards.
- **E**stimate potential harm.
- **C**hoose response options.
- **I**dentify the best option.
- **D**o the plan.
- **E**valuate progress.

12.2 Atmospheric Monitoring

- Pre-use checks: Calibration, bump test, docking station verification. After Event Ventis Meter Calibration / Bump Test
- Approach hazards from upwind; sample at 10-foot intervals, top-mid-bottom levels.
- Always utilize at least two meters on the scene for redundancy
- Immediately communicate any readings with detail over the radio to the IC (ex. PPM / LEL %)

- Begin air sampling outside the structure, then systematically sweep room by room toward the leak source. Use air monitoring devices to ensure atmospheric safety.
- Continuous metering at the perimeter to detect migrating gas in sewer lines, storm drains, and adjacent structures.

Chemical Properties Matter: Propane is heavier than air, so it accumulates in low areas; **natural gas is lighter**, dispersing upward

Hierarchy of Dangerous IDLH

- Unknown
- Oxygen Enriched
- Flammable
- Measure and Manage – Ventilate
- Toxic Skin
- Toxic Inhalation
- Oxygen Deficient
- Measure, Manage, and Protective PPE
- IDLH thresholds: PPM: Parts Per Million
 - Oxygen <19.5% (deficient) or >23.5% (enriched)
 - 20.9 % SAFE LEVEL
 - Flammability ≥10% of Lower Explosive Limit (LEL) Always Wear FULL Proper PPE
 - 0% - 10% MONITOR LEVELS
 - > 10% EVACUATE All Personnel
 - Toxicity above Permissible Exposure Limit (PEL).
 - Hydrogen Cyanide HCN
 - 10 PPM Permissible OSHA
 - 10-50 PPM HEADACHE, DIZZY, UNSTEADY
 - 50-100 PPM FEELING of Suffocation, Nausea
 - 100 – 200 PPM DEATH in 30-60 minutes
 - Hydrogen Sulfide H₂S
 - 1.5 PPM Rotten Egg Smell
 - 2-5 PPM Nausea, Headaches, Airway Issues, Tearing
 - 100 PPM Paralysis, Loss of Smell
 - 500 PPM Damage to Eyes
 - 700 PPM Loss of Consciousness / DEATH
 - Sulfur Dioxide SO₂
 - 2 PPM Permissible Exposure Limit
 - 6 PPM Irritating to nose & throat
 - 20 PPM Irritating to eyes

- 100 PPM Max Exposure Limit for 30 Mins.
- 400 PPM+ IDLH – Internal Edema/DEATH
- Chlorine CL
 - 0.5 PPM Permissible (OSHA)
 - 3 PPM Irritation Eyes & Respiratory
 - 3.5 PPM Detectible Odor
 - 15 PPM Immediate Irritation of throat
 - 100-150 PPM Pain, DEATH From long Exposure
 - 1000 PPM DEATH

Product *	Guide	Form	Location	Facility	Pressure
Anhydrous Ammonia	125	Liquid	Aboveground	Tank	Up to 300 psig
Carbon Dioxide	120	Liquid	Aboveground	Tank	Up to 2200 psig
Ethanol	127	Liquid	Aboveground	Tank	Atmospheric
Hydrogen Gas	115	Gas	Aboveground	Tank	Up to 10,000 psig
Natural Gas	115	Gas	Underground	Reservoir	Up to 5000 psig
		Liquid (LNG)	Aboveground	Tank	Atmospheric -260 °F
Petroleum Gas	115	Liquid (LPG)	Aboveground	Tank	150 – 250 psig
			Underground	Reservoir	150 – 250 psig
Petroleum Liquids	128	Liquid	Aboveground	Tank	Atmospheric
			Underground	Reservoir	Atmospheric
				Tank	Atmospheric

- Continuous monitoring is required during occupancy due to changing conditions.
 - All readings should be communicated to the Incident Commander to allow for a written record of readings
- If conditions become unsafe, evacuate personnel immediately.
- Intrinsically safe equipment requirement for tools used inside Hot Zone

Electrical Shutoffs

- Remote utility shutoff preferred over on-site if gas readings present.
- Coordination with gas/electric utility before cutting power.

12.3 - Carbon Monoxide Emergencies

Exposure Guidelines – Parts Per Million (PPM):

- **9 PPM:** Acceptable exposure level; monitor and ventilate as needed.
- **35 PPM:** SCBA required for entry; initiate ventilation procedures.
- **200 PPM:** Headache and nausea may develop in adults after prolonged exposure.
- **400 PPM:** Headaches likely within 1–2 hours of exposure.
- **800 PPM:** Nausea and dizziness occur rapidly; life-threatening without protection.
- **2000 PPM:** Fatal levels—death possible within 1 hour without immediate intervention.

Monitor and Ventilate:

- Utilize appropriate gas meters to detect and record CO levels.
- Ventilate the structure as necessary until readings return to safe levels.

Occupant Safety & EMS Coordination:

- Assess all occupants for signs or symptoms of CO poisoning (e.g., headache, dizziness, nausea).
- Request EMS to assist with patient care when symptoms are present.
- Educate occupants on CO risks and symptoms even if no hazards are detected.

Source Control & Resource Requests:

- Identify and secure potential sources of CO (e.g., heating appliances, generators, vehicles).
- Contact Central Dispatch to request the gas company when CO appliances are suspected sources of elevated CO levels.
- Determine if additional resources are needed (Rescue, Haz-Mat, etc.).

Protective Gear:

- **Full, properly donned PPE for all investigations; SCBA mask on air**

Documentation & Communication:

- If the CO source cannot be identified, advise the property owner of the highest CO level recorded.
- Recommend that the owner contact a qualified service technician for inspection and repair of appliances or systems.

Multi-Occupancy Considerations:

- In apartments, condominiums, or multi-family occupancies, monitoring of adjacent units should be considered to rule out shared ventilation or appliance hazards.

Public Education:

- All CO detector incidents are treated as emergencies.
- At no time should personnel tell occupants “no hazard exists,” even if no CO is detected; instead, educate on CO risks, possible sources, and detector maintenance.

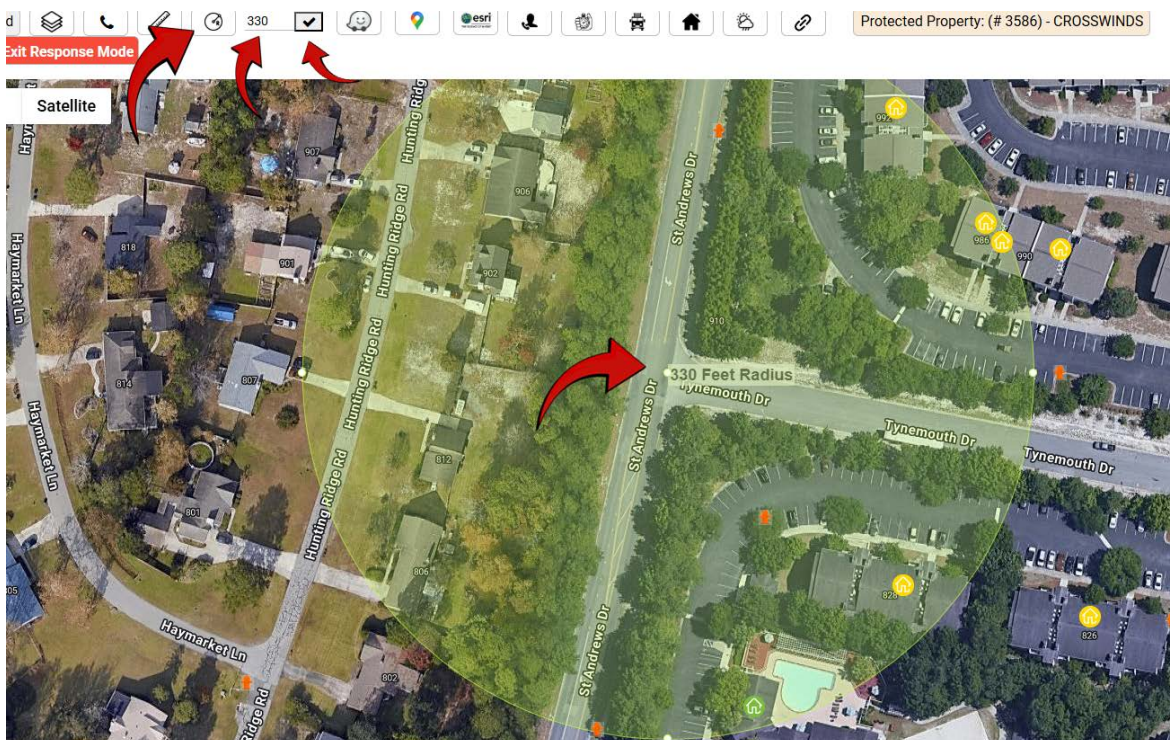
12.4 Natural Gas Emergencies / Flammable Gas

Special considerations for natural gas leaks, ruptures, or fires: If initial companies identify an active leak, the incident commander should consider the need for an additional alarm if needed for ensuring adequate isolation and rehab/recycling actions on scene.

- **Immediate Actions: Obtain Weather Report (Temp, Wind, Direction, Humidity)**
 - Isolate per ERG distances.
 - **Initial Isolation: Evacuate 330 Feet in All Directions from leak location** (*Fire / Police Line Tape if needed*)
 - Escalate Based on Circumstance:
 - **Large pipeline leak** Evacuate to **½ mile (2640 feet)** as needed downwind based on weather, area, and Incident Command determination.
 - **Fire or large release** (Tank, Rail Tank, Highway Tank) à Increase to **1 mile (5280 feet)** per ERG guidance downwind.
 - **For structures**, implement tiers:
 - **Initially:** 2-house radius (~333 feet).
 - **Staging:** ≥ 800 feet for incoming units.
 - Eliminate ignition sources; deny entry to non-essential personnel.
 - Position all apparatus/vehicles out of the hot zone and upwind
 - Do not operate any electrical devices, light switches, or other potential ignition sources while gas may be present
 - Ventilate only after ignition hazards are mitigated.
 - **Protective Gear:**
 - **Full, properly donned PPE; SCBA mask on air**
 - *Natural Gas Releases inside a building present one of the greatest flammable hazards to emergency responders.*
 - **Detection & Monitoring:**
 - Use gas meters to confirm presence and concentration.
 - Communicate all readings correctly to the IC (ex. PPM or LEL %)
 - Always use more than one meter to ensure redundancy
 - Monitor adjacent structures for migration risk.
 - With any leak, always anticipate and expect ignition will occur.
 - 0% - 10% Lower Explosive Limit (LEL) **MONITOR LEVELS**
 - > 10% Lower Explosive Limit (LEL) **EVACUATE All Personnel**
 - **Rescue Operations:**
 - Prioritize life safety while controlling ignition risk.

- **Utility Coordination:**
 - Notify gas utility immediately
 - Once the gas company is on scene and has employees working in the leak area, WFD should place a protection-staffed handline for those workers.
 - When no one is actively working in the area of the leak, a blitz nozzle should be placed in proximity for protection.
- **Fire Conditions:**
 - If ignited, **do not extinguish** unless gas flow is stopped.
 - Protect exposures, evacuate threatened areas, and maintain water streams as needed.
- **Post-Incident:**
 - Atmosphere monitoring before reentry
 - Documentation of leak source, repairs, and timeline

UTILIZE EPR RESPONSE MODE to identify radius zones:



13.0 - Downed Aircraft

- Establish safety perimeters and assess hazards.
- Coordinate with military, airport, or other aviation authorities as necessary.
- Obtain wind direction/speed (stay clear of the smoke).
- Determine military or civilian aircraft.
- Assess number of souls on board.
- Establish a safety perimeter.
- Consider the use of Class B foam.
- Contact military and/or Wilmington Airport for support.

13.1 - Emergency Operations at Wilmington Airport (ILM)

- Staging locations and response protocols for Levels 1, 2, and 3 aircraft emergencies.

13.1.1 – Three Levels of Alert

- 1. Level 1 places Units/Agencies on standby at their stations for a possible aircraft emergency at or near ILM. No response is required at this time.
- 2. Level 2 requires Units to respond to staging areas. Many New Hanover County resources would respond at this point.
- 3. Level 3 is for a confirmed aircraft crash or an event upgrade and requires emergency response to staging areas or emergency location (whichever is requested by Command).

13.1.2 - Staging

- The airport is divided into three (3) response staging areas: A, B, and C
- "A" Alpha Staging is located at the Public Safety Building (1851 Dolan Drive)
- "B" Bravo Staging is located at the forestry building near Gardner Rd / Hewlett Dr
- "C" Charlie Staging is located at the gate at the Control Tower Drive Gate off N Kerr Ave.

13.2 - Landing Rotary Wing Aircraft

Provide necessary information for helicopter landings, including location, radio frequencies, and incident details.

13.2.1 - General Procedures

- When requesting a helicopter at the incident, provide the following information:
- Radio frequencies (primary and secondary)
- Name of requester
- Call back number
- Nature of incident
- Number of patient(s), their age(s) and weight(s)
- Landing zone location, intersecting street names, global positioning system numbers, landmarks
- Radio frequencies (primary and secondary)

13.2.2 - Establishing a Landing Zone

- The landing zone (LZ) should be as level as possible, clear of trees, overhead wires, and any debris that could endanger the aircraft.
- Maintain a clear zone with a minimum diameter of 100 feet during the day and 100 feet by 100 feet at night. The slope of the landing area must not exceed ten degrees (10°).
- During daylight operations, mark the four corners of the LZ with cones. Use a fifth cone on the upwind side to indicate wind direction.
- For nighttime operations, perimeter lighting can be achieved using emergency vehicles with their warning lights activated. Use low-beam headlights crossed at the corners to form an "X" and telescoping lights to illuminate the area. Avoid shining lights upward or into the pilot's line of sight.
- Inspect and remove any loose debris or objects in the area that could become projectiles.
- The final decision to land rests solely with the pilot. The pilot may choose an alternate LZ if deemed necessary.
- Have a charged hose line available, if possible, to dampen loose surface areas before landing and to address potential fire risks during landing or takeoff.
- Maintain clear radio communication with the aircraft. Inform the pilot when the helicopter is seen or heard, identify hazards, and provide a description of the LZ and nearby landmarks.
- **DO NOT USE HAND SIGNALS** to communicate with the aircraft. For all communication with the **AIRLINK Pilot, use LZ EAST 1** (K BANK CHANNEL 11)
- Do not approach the helicopter until signaled by the pilot or a flight crew member.
- Always approach the helicopter from the front, never from the rear, to avoid the tail rotor.
- Personnel near the aircraft must wear a helmet and eye protection and should avoid loose clothing, hats, or any items that could be blown away by rotor wash.

Appendix B: High-Rise Operations

1.0 - Purpose

High-rise firefighting operations are significantly more complex and resource-intensive than single-family residences. These guidelines aim to assist the Incident Commander (IC) deploy resources effectively to address critical factors and tactical priorities safely and efficiently.

2.0 - Definition

For this guideline, a high-rise building is defined as any structure with four (4) or more stories equipped with a standpipe system.

3.0 - Dispatch Assignment

- Refer to current Emergency Fire Dispatch (EFD) response guidelines in PowerDMS for details on dispatch protocols.

4.0 – Procedures

4.1 - Command

1. Establish Command.
2. Conduct a Size-Up.
3. Investigate the alarm location using the Fire Command Center (FCC) or alarm annunciator panel.

Key Actions:

- Identify the nature, location, and extent of the emergency. For confirmed working fires, transmit a second alarm.
- Establish Command assignments:
 - **Command Post (CP):**
 - Assign staff, including:
 - Safety Officer
 - Building Maintenance Technician/Representative
 - Public Information Officer (PIO)
 - **Additional Roles:**
 - Accountability / Lobby Control
 - Elevator/Stairwell Control
 - Staging (two floors below fire)
 - Rehab

- Level II Staging Manager
- **Divisions/Groups:**
 - Fire Attack
 - Search
 - Rescue/Evacuation
 - Ventilation

4.2 - High-Rise Fire Tactical Priorities

4.2.1 - 1st Alarm Engine Company Tactical Priorities

- Access the division below the reported fire floor with a hose and equipment for recon and fire attack.
- Identify and communicate the "attack" stairwell to Command and all responding units.
- Secure a water supply and connect to the Fire Department Connection (FDC) for the fire attack stairwell.
- Deploy a second hose line if required or support the water supply.
- First two Engine Companies should be teamed up as the initial fire attack group.
- Assign a Rapid Intervention Crew (RIC) with at least four personnel.

4.2.2 - 1st Alarm Truck Company Tactical Priorities

- Spot apparatus for aerial ladder or ground ladder operations.
- Access the fire floor and locate the fire.
- Coordinate ventilation with fire attack operations.
- Search evacuation stairwells and pressurize both attack and evacuation stairwells.

4.2.3 - 1st Alarm Rescue Company Tactical Priorities

- Support ventilation, forcible entry, recon, and search of upper floors, or assist fire attack crews as directed by the IC.

4.2.4 - Safety Officer

- Establish Lobby Control. / Recall all elevators to the lobby and determine their safety for use.

4.2.5 - 1st Arriving Battalion Chief

- Assume Command after receiving a CAN (Conditions, Actions, Needs) report from the initial IC.
- Request additional resources or establish Level II Staging.

4.2.6 - 2nd Arriving Battalion Chief

- Assume Division/Group Supervisor roles as assigned by Command.

4.2.7 - 1st Arriving Squad Units

- Obtain tactical assignments from the IC and prepare to execute.

4.3 - Lobby Control

- Manage all lobby activities and initiate firefighter accountability.
- Collect and record passports for personnel entering the building.
- Recall and secure all elevators to the lobby if not already done by the building's fire alarm system.

4.4 - Enclosed Stairwells/Towers

- Designate and maintain "attack" and "evacuation" stairwells.
- Pressurize stairwells, with priority given to evacuation stairwells.
- Check all stairwells for occupants and ensure unused standpipe outlets are closed.

4.5 - Elevators

- Avoid elevator use for fires below the 7th floor.
- Use elevators in "firefighter" or manual mode only, stopping no higher than two (2) floors below the fire floor.
- Assign a firefighter to each elevator in use and equip personnel with forcible entry tools and fire extinguishers.

4.6 - Ventilation

- Shut down the HVAC system to curtail fire spread.
- Reactivate air handling systems only in coordination with the building engineer and after notifying all Division/Group Supervisors.

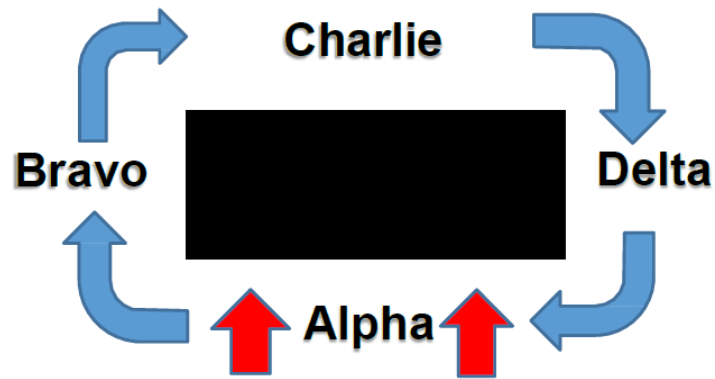
4.7 - High-Rise Hose and Kits

- Each Engine should carry:
 - **150 feet of 2.5-inch hose** (no smaller diameter).
 - A high-rise kit containing:
 - 2.5-inch smooth bore nozzle (1 1/8-inch tip) / In-line pressure gauge.
 - 1.5-inch female to 2.5-inch male adapter.
 - Pipe wrench, gate valve, mallet, channel locks, vice grips, screwdrivers, and door wedges.



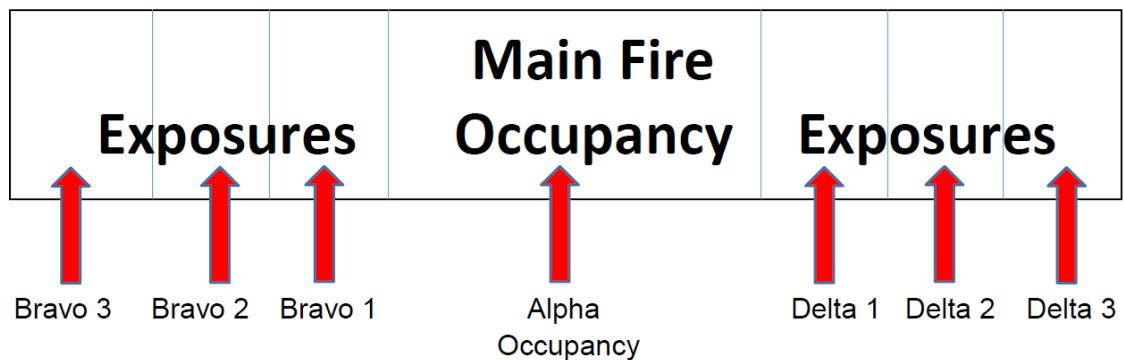
MAYDAY

- ☐ RADIO TRAFFIC “MAYDAY! MAYDAY! MAYDAY!”
- ☐ All OTHER RADIO Traffic on the channel shall cease until MAYDAY Operation is complete
- ☐ NEW Radio Designation Obtained for remainder of OPERATIONS –
CONTINUE TO FIGHT THE FIRE – Fire Attack, Ventilation, Egress, Extension Control
- ☐ LOCATION: _____
- ☐ UNIT ID: _____
- ☐ NAME: _____
- ☐ ASSIGNMENT: _____
- ☐ RESOURCES YOU NEED: _____
- ☐ Sound Alert Tones and Announce MAYDAY on the FIREGROUND
- ☐ ACTIVATE RAPID INTERVENTION CREW
- ☐ Request an Additional Alarm
- ☐ PAR of all remaining UNITS on scene through secondary channel for operations
- ☐ FOCUS on the RESCUE
 - ☐ Locate the downed member
 - ☐ Secure downed member air supply
 - ☐ Create a defensible space
 - ☐ Develop an extrication plan
- ☐ Prepare for 3 deep relief crews
- ☐ CONTINUE TO PUT THE FIRE OUT
- ☐ SAFETY TO MONITOR BUILDING CONDITIONS
- ☐ ADDITIONAL EMS UNITS



Floor 4 is called Division 4
 Floor 3 is called Division 3
 Floor 2 is called Division 2
 Floor 1 is called Division 1

Sub-Floor 1 is called SubDivision 1
 Sub-Floor 2 is called SubDivision 2



BUILDING SIZE	SM	MD	LG	MG			
HEIGHT	1	2	3	4	5	6	
TYPE							

NOTHING SHOWING	LIGHT SMOKE	WORKING FX	DEFENSIVE FIRE
-----------------	-------------	------------	----------------

FX LOCATION

INCIDENT ACTION PLAN

SUPPLY STRETCH QUICK HIT DEFENSIVE OPS

STRATEGY OFFENSIVE DEFENSIVE

RESOURCE CANCEL HOLD BALANCE 2nd Alarm +

ACCOUNTABILITY & CMD POST LOCATION

CAN REPORT

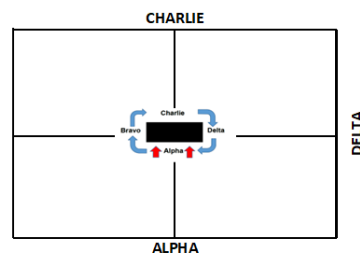
		ON DECK	REHAB	RECYCLED
ENG	RC	PS	SS	
	VT	EX	RIC	
ENG	RC	PS	SS	
	VT	EX	RIC	
ENG	RC	PS	SS	
	VT	EX	RIC	
ENG	RC	PS	SS	
	VT	EX	RIC	
ENG	RC	PS	SS	
	VT	EX	RIC	
SQUAD	RC	PS	SS	
	VT	EX	RIC	
SQUAD	RC	PS	SS	
	VT	EX	RIC	
RESCUE	RC	PS	SS	
	VT	EX	RIC	
TRUCK	RC	PS	SS	
	VT	EX	RIC	
TRUCK	RC	PS	SS	
	VT	EX	RIC	
TRUCK	RC	PS	SS	
	VT	EX	RIC	
SECTOR OPS				

300 Complete?		H2O SUPPLY	
PS CHANNEL		1AD	
		RIC Establish	
		WEATHER	
LOSS STOPPED		PRIMARY SEARCH	ALL CLEAR?
FX CONTROL		SECONDARY SEARCH	ALL CLEAR?
		DECON Setup?	
CMD TRANSFER		STORIES FROM CHARLIE	
		UNIT RUNDOWN	
		TRANSFER CAN	
		STRATEGY	
		RESOURCE	
RED CROSS		DUKE ENERGY	
RLS		GAS Co.	
Mobile Air 1		Property MNGMT	
WFD DRONE		PIO Notification	

NEEDS	

Floor 4 is called Division 4
Floor 3 is called Division 3
Floor 2 is called Division 2
Floor 1 is called Division 1

Sub-Floor 1 is called SubDivision 1
Sub-Floor 2 is called SubDivision 2



ROOF	

