Rogue Valley Fire Rescue
Standing Orders

2022

Chief's Memorandum regarding Fire Rescue Standing Orders

This memorandum provides the authority for all members of Medford Fire Department, Jackson County Fire District 3, Ashland Fire & Rescue, and Jacksonville Fire Department to function within the protocols and guidelines established herein.

Further, it is expressly noted that these are written with the intent to provide our membership a basic road map for success with various situations and emergency scenes. In **NO WAY** is this document intended to limit the necessary and critical flexibility that our crews need.

Our Chiefs, Company Officers, Engineers, and Firefighters will continue to assume considerable latitude when managing emergency and non-emergency events for our patrons. These protocols and guidelines should be integrated into that process whenever possible.

Our goal is to maintain a clear adherence to best practices in our industry and to that end these Protocols, Performance Guidelines, and Plans will be continuously reviewed and modified as necessary.

These Standing Orders shall be in effect November 1, 2022 through June 30, 2025 unless otherwise revised or amended. This edition of the FRSO will supersede and make void any and all written and approved prior to this date.

It is also critical to note that agencies maintain separate organizational policies that must be adhered to as well. Often pieces of those specific mandates are referenced here for your use, but they likely do not cover everything noted in a given policy. We have endeavored to ensure that no overlap or conflict exists between this document and those existing policies.

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Rogue Valley Fire Rescue Standing Orders

November 1, 2022 Revisions

Accountability
Revised
Mayday - Calling
Revised
Mayday - Management
Revised

HOW TO USE THIS DOCUMENT

This document is laid out in a style that is similar to your EMS Standing Orders. We have included protocols, performance guidelines, plans, and a section for Acronyms and Definitions. ***Below is a list of FAQ's that should help ensure you are getting the most out of this resource.***

What is a Protocol?

For our purposes a protocol can be considered a blend of policy and procedure. There are several types of protocols included within this book. We have included protocols for **call types** that you will be dispatched to, for **high risk skills** (tactics) you will be asked to perform and protocols for various **situations** that arise when responding to incidents. We also have included **facility specific** protocols. If staff has developed specific response protocols (radio frequency, arrival locations, staging plans etc.) for a given location we have transitioned those into this format. Anytime you see a protocol on a given topic you can be sure that your organization wants to provide parameters which should increase your safety and help ensure a consistent delivery of service. **Protocols are formatted to be an enroute and on-scene resource for you.**

What is a Performance Guideline?

A Performance Guideline will sometimes be designed as a step-by-guideline and other times will read more as a general list of considerations for a particular skill or task. Performance Guidelines will generally be **more of a training resource** and your go-to for equipment set-up/layout. Where Protocols can more easily be an on-scene resource **Performance Guidelines really are best used in training, skill development, and evaluation.**

Why are some skills Protocols and other Performance Guidelines?

Risk. Where the consequences of something going wrong are high or the discretionary time to make critical decisions is limited you will see a protocol. If a skill has a lot of mandates from our trainers (terms like shall, always, will, shall not, etc.) those parts will be in the protocol and the considerations and "what-ifs" and "teaching points" will likely be in the Performance Guideline.

Why do some things have both a Protocol and a Performance Guideline?

Because some things we do are really complicated and very dynamic. Almost every fire ground skill can be performed differently under different circumstance and scene conditions. Take **search** for example. The Performance Guideline is a great place to go to read more into the whys and "what ifs" when considering different search techniques. The Protocol for a particular search type both summarizes the key points but also clearly defines any mandates we shall follow when performing one of the options described in the search Performance Guideline.

Are these documents replacing policy?

Throughout this book we have referenced existing policy. Some Protocols include almost all of the content of an existing policy, others include just some key points. Consider them like field references. We have done this so that you can meet your organizations needs in the field when you don't have time or the ability to access your policy manual. We do not believe any conflict exist between this resource and those documents. Examples include apparatus backing and highway response.

I'm not on the HAZMAT team or the TRT, should I care about the plans in the back?

Yep, but maybe a little less than a team member does. They are included here so we have on-scene reference and they provide training consistency. Non-team members are consistently utilized on these types of scenes and increased knowledge and skill is very important. An engine company may not be asked to perform a high-angle rescue alone or enter the hot-zone of a HAZMAT but they will surely be asked to help rig the system or set-up the decon corridor. This is where you can go to be ready.

What if I deviate from something written in this book?

Well that depends. We need Chiefs, Company Officers, Engineers, and Firefighters who can think, react, and perform under very dynamic and inconsistent circumstances. Sometimes the plan, protocol, or guideline will not work, plain and simple. Be ready to answer the question of "why" you did what you did. Other times your actions are very clearly mandated, in this case compliance is critical for your safely and the safety of others.

Who/what does the term District refer to in this document?

The Fire Chiefs have agreed that for our purposes the term "District" will be the combined area served by Medford Fire-Rescue and Fire District 3. When something is specifically listed as only regarding MFR or only occurring in the city it will be clearly noted. Otherwise the "District" is all encompassing.

Throughout this document riding position roles are defined, is that mandatory?

No it isn't mandatory, but it wasn't accidental either. In most cases our training leads have developed a pre-plan for roles at the incident given a team of three or four members. They have evaluated the steps, tasks, roles, and general pieces of a given operation and are providing you a starting place for how a company would most efficiently accomplish the task. If you have a better way or want to mix up the roles - go for it. Just remember you are still responsible to accomplish what the protocol mandates. Additionally, other companies and firefighters (i.e. floaters or people on OT or exchange) will probably be expecting what is listed here, if you change it up be sure to communicate with other around you on the scene.

This thing is way too specific, things will surely change and then this will be outdated.

The specificity you will find here is intentional, as is the commitment to keeping this document alive. We see little value in a generic document. For example, some policy manuals tell you to do something but don't tell you how or give the specific information you need for fear of having to update it later. This is the opposite. The TF / ST protocol is specific for the coming summer; we'll update it each year. The airport response protocol is very specific, if gate locations change – we will change the document to reflect it. If an emergency update is necessary you will be informed.

How can I possibly learn or remember nearly 60 protocols and 50 performance guidelines?

You probably will never have this thing memorized and that is OK. Over time we do anticipate that our people will become familiar with these orders and they will become engrained into our operations.

There *is* some good news however– it is likely that you will not need more than a couple protocols on any given incident and if you must look something up – go for it. The second piece of good news is that while not all of this content was previously written as a policy, Ops Guideline, Admin Guideline, Performance Guideline, or Methods Manual policy/procedure, most of this stuff has long been the practice of MFR and FD3 or best practices in our industry.

In other words – you are likely already doing most of this!

Fire Rescue Standing Orders Review Committee

The review committee will meet annually to review the Standing Orders and any suggestions submitted by our members. This entire resource will be reviewed and updated as necessary and we will work with staff, training leads, and other interested members; your participation is encouraged and needed! We will issue a new set of Standing Orders on the website effective July 1 of each year and additional resources (books or binders) will be the responsibility of each agency. **The website is the default location for the most up-to-date information we have.**

How to contribute:

Email your ideas for improvement, content suggestions, questions, input, errors, new protocols, new performance guidelines, definitions, or anything to make this document better to: **rvfrso@gmail.com**

Acknowledgements

We would like to thank these members below who have contributed countless hours to this process and to everyone who has given this document a chance:

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Deputy Chief Mike Hussey
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Battalion Chief Mike Calhoun
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Battalion Chief Myron Harvey
Battalion Chief Tom McGowan
Battalion Chief Rick Rohrbough (ret.)
Battalion Chief Erin Sawall
Battalion Chief Kip Gray
Battalion Chief Brian Farber
Captain David Ackles
Captain Jason Allen
Captain Will Clelland
Captain Bryan Cohee
Captain Rob English
Captain Chris Howard
Captain Ben Kennedy
Captain Ron Nelson (ret.)
Captain Wayne Painter (ret.)
Captain Allan Rogers
Captain Rob Wright
Captain John Peterson
Captain Mike Longo
Engineer Cody Clark
Engineer Manny Gobel
Engineer Tom Kerley
Engineer Eric Merrill
Engineer Bill Parks (ret.)
Firefighter Justin Fish
Firefighter Brian Hammer (ret.)
Firefighter Rich Martin
Firefighter Manny Sharp
Firefighter Ryan Stidham

ACRONYMS & DEFINITIONS

AAR	After Action Review
ARC	American Red Cross
ARES	Amateur Radio Emergency Services
BAR	Brief Arrival Report
CAD	Computer-Aided Dispatch
CBRNE	Chemical, Biological, Radiological, Nuclear, Explosive
CCP	Casualty Collection Point
CDC	Centers for Disease Control
CERT	Community Emergency Response Teams
CISD/CISM	Critical Incident Stress Debriefing / Management
COUNTY	Jackson County
DECON	Decontamination
DHS	Department of Homeland Security
DPSST	Department Public Safety Standards Training
EAP	Emergency Action Plan
EAS	Emergency Alert System
ECSO	Emergency Communications of Southern Oregon
EMR	Elevator Mechanical Room
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
ERG	Emergency Response Guidebook
EVT	Emergency Vehicle Technician
FAA	Federal Aviation Administration
FD3	Fire District 3 (Jackson County)
FDBC	Fire Defense Board Chief
FEMA	Federal Emergency Management Agency
FMZ	Fire Management Zone
FRSO	Fire Rescue Standing Orders

ACRONYMS & DEFINITIONS

GIS	Geographic Information System
GPS	Global Positioning System
HAM	Amateur Radio Operator
HAZMAT	Hazardous Material(s)
IAP	Incident Action Plan
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
IDLH	Immediately Dangerous to Life and Health
IGA	Intergovernmental Agreement
IMT	Incident Management Team
ISO	Incident Safety Officer
IT	Information Technology
JCSO	Jackson County Sheriff's Office
JOC	Joint Operations Center
L2SA	Level 2 Staging Area
LCAN	Location Conditions Actions Needs
LE	Law Enforcement
LEO	Law Enforcement Officer
LEDS	Law Enforcement Data System
LSC	Logistics Section Chief
LOTO	Lock-Out/ Tag-Out
MA	Mutual Aid
MCI	Mass Casualty Incident
ME	Medical Examiner
MFR	Medford Fire Rescue
MOU	Memorandum of Understanding
MRE	Meal Ready to Eat
NGO	Non-Governmental Organization

ACRONYMS & DEFINITIONS

NIMS	National Incident Management System
NTSB	National Transportation Safety Board
NWS	National Weather Service
NYRH	New York Roof Hook
OSC	Operations Section Chief
ODF	Oregon Department of Forestry
ODOE	Oregon Department of Energy
ODOT	Oregon Department of Transportation
OEM	Oregon Emergency Management
OERS	Oregon Emergency Response System
ORS	Oregon Revised Statutes
OSHA	Occupational Health and Safety Administration
OSP	Oregon State Police
PA	Public Assistance / Public Address
PAR	Personnel Accountability Report
PIO	Public Information Officer
PPE	Personal Protective Equipment
PPL	Pacific Power and Light
PSAP	Public Safety Answering Point (9-1-1)
PSC	Planning Section Chief
Recon	Reconnaissance
RMS	Record Management System
SCBA	Self Contained Breathing Apparatus
SitRep	Situation Report
SOG	(USAR) Shoring Operations Guide
SOG	Special Operations Group (*retired term*, replaced by TRT)
SO	Sheriff's Office
START	Simple Triage and Rapid Treatment
TAT	Turn Around Time

ACRONYMS & DEFINITIONS

TFL	Task Force Leader
TLO	Task, Location, Objective
TRA	Temporary Refuge Area
TRT	Technical Rescue Team
UC	Unified Command
UCAN-A	Unit Conditions Actions Needs-Air
UGB	Urban Growth Boundary
URM	Un-Reinforced Masonry
USAR/US&R	Urban Search and Rescue
VEIS	Vent Enter Isolate Search
WMD	Weapons of Mass Destruction
WUI	Wildland Urban Interface

ACRONYMS & DEFINITIONS

Abandon: Used when an immediate withdrawal of personnel to a safe area is necessary. The person calling for the signal must define the area to be abandoned. Personnel will drop their tools and abandon the area.

Actual Event: A disaster (natural or man-made) that has warranted action to protect life, property, environment, public health or safety. Natural disasters include earthquakes, hurricanes, tornadoes, floods, etc.; man-made (either intentional or accidental) incidents can include chemical spills, terrorist attacks, explosives, biological attacks, etc.

After Action Review: The After Action Review assesses and measures our performance at an incident. Recommendations for improvements are made. The Improvement Plan outlines the actions that the exercising jurisdiction(s) plans to take to address recommendations contained in the After Action Report.

Against Construction: Vertical ventilation operation where the head cut "rolls rafters" Low 8 / high 5 are generally performed against construction. Also a term used with defensive strips.

Agency Representative: A person assigned by a primary, assisting, or cooperating State, local, or tribal government agency or private entity that has been delegated authority to make decisions affecting that agency's or organization's participation in incident management activities following appropriate consultation with the leadership of that agency.

Agency: A division of government with a specific function offering a particular kind of assistance. In ICS, agencies are defined either as jurisdictional (having statutory responsibility for incident management) or as assisting or cooperating (providing resources or other assistance).

All Hazards: Any incident caused by terrorism, natural disasters, or any CBRNE accident. Such incidents require a multi-jurisdictional and multi-functional response and recovery effort.

Anchored-In: *Local term developed in conjunction with airport fire*. ARFF apparatus no longer need to be mobile. Additional hose lines may be attached to the crash trucks at this point only.

Assignments: Tasks given to resources to perform within a given operational period that are based on operational objectives defined in the IAP.

Attack Pumper: Fire engine pumping the hose lines which are actually extinguishing the fire.

Back-Up: The second hose line of a fire attack. Not an independent assignment, part /role of the fire attack company or group.

Base: The location at which primary Logistical functions for an incident are coordinated and administered. There is only one Base per incident. (Incident name or other designator will be added to the term Base.) The Incident Command Post may be collocated with the Base.

ACRONYMS & DEFINITIONS

Building Size (Small, Medium, Large, Mega): Based off of a 200' hoseline, the building size is determined by a maximum depth of 150' to 175' into a structure with an IDLH atmosphere. Determine the percentage (%) of an area that can be reached by a 200 foot hoseline.

Small: a 200' hoseline can access 100% of the building.
Medium: a 200' hoseline can access approximately 75% of the building/fire area.
Large: a 200' hoseline can access approximately 50% of the building/fire area.
Mega: a 200' hoseline can access approximately 25% of the building/fire area.

Branch: The organizational level having functional or geographical responsibility for major aspects of the Operations or Logistics functions.

Cache: A pre-determined complement of tools, equipment and/or supplies stored in a designated location, available for incident use.

C.A.N. Reports: These reports are initiated by Command or Division Supervisors to companies and are considered progress reports. They should state the current Conditions, Actions, and Needs.

Chain-of-Command: A series of command, control, executive, or management positions in hierarchical order of authority.

Check-In: The process through which responders are entered in to the ICS system at an incident.

Chief: The ICS title for individuals responsible for management of functional sections: Operations, Planning, Logistics and Finance/Administration. Additionally, the agency head of the Fire Department/Fire District.

Civilian: A person that is not a member of the fire department.

Code 13: Used when a Firefighter's life is in imminent danger from a hostile person (i.e.: taken hostage), when clear text or attempt to abandon the area is not an option. **Will not** receive a verbal confirmation from ECSO but will elicit prompt law response. This is an unquestioned request and applicable in all aspects of your duty.

Cold Zone: The area where no significant danger or threat can be reasonably anticipated. This could be achieved by distance, geographic location or inaccessible areas from the incident.

Command: The act of directing, ordering, or controlling by virtue of explicit statutory, regulatory, or delegated authority.

Command Staff: In an incident management organization, the Command Staff consists of the Incident Command and the Legal Officer, Public Information Officer, Safety Officer, Liaison Officer, and other positions as required, who report directly to the Incident Commander.

ACRONYMS & DEFINITIONS

Communications Unit: An organizational unit in the Logistics Section responsible for providing communication services in the EOC. A Communications Unit may also be a facility (e.g., a trailer or mobile van) used to support an Incident Communications Center.

Courtesy Lock: Small padlock carried by engine companies used to secure a facility, door, fence or gate that we forced. All are keyed the same to allow for another company to open for the property owner later. Labeled with our phone.

Courtesy Ride: Allowing a civilian(s) to ride in our apparatus when they are in distress or in need of assistance. Provide ECSO starting and ending mileages.

Curb Cock: (AKA CC, CC valve, or curb stop) is a shut-off valve that allows water to be turned off at a customer's property.

Defensive Fire Conditions: The incident problem has evolved to the point that lives and property are no longer savable and offensive tactics are no longer effective or safe; the primary focus with these conditions will generally be exposure protection.

Delegation of Authority: A written statement of authority issued by an agency executive to allow another entity specific operational control of an incident element. The statement identifies legal authorities and restrictions, financial authorities and restrictions, reporting requirements, mission objectives and priorities, public information and communications process.

Deputy: A fully qualified individual who is designated authority to support a Section Chief manage a functional operation or perform specific tasks.

Directed Search: See ORIENTED LEADER SEARCH

Division: A Division is used to divide an incident into geographical area(s) of operation. Divisions are established when the number of resources exceeds the span-of-control of the Incident Commander. To manage span-of-control, establish geographic area(s) where companies are working together doing different tasks to accomplish objectives assigned by the Incident Commander (Division Supervisor will pick the tactics). Assign a leader and geographic / area designator (Division 2, Delta Division).

Emergency Declaration: Oregon Revised Statue 401 provides counties and cities the authority to declare an emergency in order to provide the governing body flexibility to manage critical resources, protect the public and is the gateway to access state/federal assets for response and recovery assistance.

Emergency Operations Center (EOC): The physical location at which the coordination of information and resources to support major emergency or disaster takes place. JCSO HQ - 5179 Crater Lake Hwy (1st Choice) or ECSO (2nd Choice).

Emergency Traffic: Used by the Incident Commander to gain control of the radio traffic for specific circumstances such as but not limited to a change in strategy (offensive to defensive); declare and identify an imminent hazard due to structural stability; or other sudden changes to circumstances deemed worthy by the IC. Once declared the IC controls all radio traffic on the incident and crews will maintain radio discipline/silence until the Emergency Traffic is cleared by the IC **(***NOTE: this change to Emergency Traffic conflicts with the RVFCA Model Operating Guideline #3.04*****).

Evacuate / Evacuation: Organized, phased, and supervised withdrawal, dispersal, or removal of **civilians** from dangerous or potentially dangerous areas.

Exhaust Point: Opening(s), either existing or created by us, to allow for heat and smoke to exit the building. Usually used during a PPA.

Fast Attack: <u>Retired Term.</u> See WORKING COMMAND.

Fill Site Pumper: Engine company who is drawing water from a fixed source and filling tenders.

Fixed Command - ICP and the IC is not mobile. Either in the street or from a vehicle (engine or BC rig). Usually employed when the incident requires strong direct command presence from the outset. ICP location is broadcast during the follow-up radio report.

Flank: Wildland term**.** The perpendicular spread of the fire as opposed to the head or heel.

Flow Path: The movement of heat and smoke from the higher air pressure within the fire area to all other lower air pressure areas both inside and outside of a fire building.

Function: Function refers to the five major activities in ICS: Command, Operations, Planning, Logistics, and Finance/Administration. The term function is also used when describing the activity involved, e.g., the planning function. A sixth function, Intelligence, may be established, if required, to meet incident management needs.

General Staff: A group of incident management personnel organized according to function and reporting to the Incident Commander. The General Staff normally consists of the Operations Section Chief, Planning Section Chief, Logistics Section Chief, and Finance/Administration Section Chief.

Group: A group is established to divide the incident into functional areas of operation. Groups are composed of resources assembled to perform a special function not necessarily within a single geographic division. When multiple companies are working in the same area working on the same assignment, assign a leader and functional designator.

Hazard: Something that is potentially dangerous or harmful, often the root cause of an unwanted outcome.

Hazardous Material (HAZMAT) –Substance in a quantity, or form, posing a risk to health, safety, and/or property when manufactured, stored, or transported. It may be toxic, corrosive, flammable, reactive, an irritant, or a strong sensitizer and pose a threat to health and the environment when improperly managed.

Head: Wildland term. The leading edge of the fire. Generally, the most intense fire and fastest moving.

High 5: Vertical vent term for our steep pitch roof cut pattern as it involves "5 cuts" and is steep (high).

Hotwash (Tailboard AAR): A hotwash is the "after-action" discussions and evaluations that occurs while on scene or in quarters right after an incident response. The main purpose of a hotwash / Tailboard A.A.R. is to identify strengths and weaknesses of the response to a given event. This is not a formal AAR managed by the training department(s). Sharing of info with other crews is encouraged.

Hot Zone: The area where a direct and immediate hazard exists. Term is used in firefighting, HAZMAT and Active Threat scenarios with slightly different meanings.

Incident – As used in the FRSO, this term is intended to describe a range of situations from routine to catastrophic emergencies and other events which require management (parades, large public gatherings etc.)

Incident Action Plan: An oral or written plan containing general objectives reflecting the overall strategy for managing on scene incident activities.

Incident Command Post: The field location at which the primary tactical-level, on-scene incident command functions are performed.

Incident Command System (ICS): A standardized all-hazards emergency management approach that provides an integrated organizational structure that reflects the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries. ICS is the combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure, designed to aid in the management of resources during incidents.

ACRONYMS & DEFINITIONS

Incident Commander: The individual responsible for all incident activities, including the development of strategies and tactics and the ordering and the release of resources. The IC has overall authority and responsibility for conducting incident operations and is responsible for the management of all incident operations at the incident site. The term differs for EOC Command that is responsible for EOC support and coordination of the incident.

Incident Management Team: The IC and appropriate Command and General Staff personnel assigned to an incident. An IMT is also referred to as a specialized team delegated authority for a specific incident mission.

Incident Objectives: Statements of guidance and direction necessary for selecting appropriate strategy(s) and the tactical direction for EOC activities. Incident objectives must be achievable and measurable, yet flexible enough to allow strategic and tactical alternatives.

Incipient: "Incipient stage fire" means a fire which is in the initial or beginning stage and which can be controlled or extinguished by portable fire extinguishers, without the need for protective clothing or breathing apparatus.

Investigating: When a company arrives to an incident and no problem is apparent they will advise "Nothing Showing". Investigating is the process by which the crew determines if, and to what degree, an emergency exists.

Jurisdiction: A range or sphere of authority. Public agencies have jurisdiction at an incident related to their legal responsibilities and authority. Jurisdictional authority at an incident can be political or geographical (e.g., City, County, State or Federal boundary lines) or functional (e.g., law enforcement, public health).

Level 1 Staging: 1 block from the emergency scene in the same direction you are approaching from generally companies will not pass the last hydrant if reasonable.

Level 2 Staging: A specified staging area designated by the IC, will usually include a dedicated staging officer.

Liaison Officer: A member of the Command Staff responsible for coordinating with representatives from other jurisdictions and external stakeholders.

Light Smoke Showing: Describes a situation where there is smoke showing but may be remedied **without** the use of all responding companies. When the first company arrives and advises light smoke showing it is understood they will be investigating. Additional responding companies will continue Code 3 unless directed to reduce, stage, or return by the Incident Commander.

Logistics: Providing resources and other services to support incident management.

Logistics Section: The section responsible for providing facilities, services, resource support and procurement functions in support of an incident.

Louver: Process of getting a vertical vent opening to "hinge" on a rafter after all of the cuts are made. i.e. opening the hole.

Low 8: Vertical vent term for our low pitch roof cut pattern as it involves "8 cuts" and is not steep (low).

MAYDAY: Radio term used to signify that your life is in danger and that you need immediate help. Also see "Code 13".

Mutual-Aid Agreement: Written agreement between agencies and/or jurisdictions that they will assist one another on request, by furnishing personnel, equipment, and/or supplies according to specified terms.

National Incident Management System: A system that provides a consistent nationwide approach for State, local, and tribal governments; the private-sector, and nongovernmental organizations to work effectively and efficiently together to prepare for, respond to, and recover from domestic incidents, regardless of cause, size, or complexity.

Nothing Showing: When the first company arrives and advises nothing is showing it is understood they will be investigating. Additional responding companies will continue Code 1 unless directed to stage or return by the Incident Commander.

On-Deck: Defined as a forward staging position located just outside the immediate hazard zone. Once a crew is assigned to an On-Deck position, they are first and foremost available to assist with a MAYDAY until they are given an assignment by command. Personnel will walk into the forward "On-Deck" area with full PPE, RIT bag, RIT tarp/carryall, and a flashlight. The first engine assigned to a dedicated "RIT" assignment will establish the RIT cache (see the "RIT – Pre-Activation" protocol).

Operational Period: The time scheduled for executing a given set of operation actions, as specified in the IAP. Operational periods can be of various lengths, (12-16 hours is common in the wildland setting), although usually not over 24 hours.

Operations Section: The section responsible for strategies and tasking to support EOC objectives.

Oriented Leader Search: Search technique where 1 member directs the actions of his partner(s) while remaining in an anchored position.

Overhaul Period: Period beginning after complete knock down is achieved.

ACRONYMS & DEFINITIONS

PACE: An acronym for Contingency Planning in the Interface. **P**rimary plan (Offensive), **A**lternate plan (Offensive), **C**ontingency plan (Defensive), **E**mergency plan (Defensive).

Passport: The actual tag used to track the personnel on a scene. 1 tag stays in the vehicle and the other is held by either a division sup or the IC.

Performance Guideline: Step-by-step guide to a particular task or equipment set-up. Also used to capture a lot of valuable information regarding a specific tactic or topic. Often very detailed and valuable in training and evaluation. Not designed for use on the emergency scene. Some have corresponding Protocols to aid you on scene.

Personnel Accountability: The ability to account for the location and welfare of all incident personnel.

Plain Text: Common terms and definitions that can be understood by individuals from all responder disciplines.

Plan: These FRSO have three plans included. TRT, HAZMAT and HIGHRISE. All three disciplines require more information that is reasonable for a Performance Guideline. All three areas also have Protocols in place to guide initial operations.

Planning Meeting: The meeting held as the culmination of the IAP development to direct objectives and priorities for the next operational period.

Planning Section: Is responsible for the collection, evaluation, and dissemination of situational information related to the incident, and for the preparation and documentation of the IAP.

Priority Radio Traffic: When a company encounters a situation/condition that was not expected or they feel command needs to be aware of the information right away. This is considered "Red Flag" information (usually bad news) and may require adjustments to the current IAP or Strategy. This includes but is not limited to:

- 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 fire in concealed spaces not easily controlled by the locating unit
- A roof report that includes a working attic fire, unsafe roof structure/members, or an imminent collapse threat
- Sudden, significant incident events such as flashover, backdraft, or collapse

Positive Pressure Attack: A fire attack where blowers pressurize the fire building and exhaust smoke and heat to allow firefighters make an interior attack following the clean air.

Positive Pressure Ventilation: Using blowers to clear heat and smoke after the fire is knocked down.

Primary Search: First search of a fire building. Usually rapid and possibly less complete.

Preplanned Event: A preplanned event is a non-emergency activity. ICS can be used as the management system for events such as parades, concerts, or sporting events, etc.

Protocol: Agreed upon set of expectations / mandates / policy and-or procedures. Usually 1-2 pages. There are 4 types: call types, tactics, scene scenarios and facility specific. Some are also married to a corresponding Performance Guideline. Formatted for use while enroute or on scene if necessary. Some will refer you to a corresponding Plan.

Public Information Officer (PIO): A member of the Command Staff responsible for interfacing with the public and media or with other agencies with incident-related information requirements.

Record Management System: *Fire House / Emergency reporting.* Where we document our on scene actions and EMS charts.

Recovery Mode: (ARFF SPECIFIC) *Local term developed in conjunction with airport fire***.** Emergency is stable but the aircraft CANNOT be moved until cleared by the FAA and NTSB. See below for other definition.

Recovery Mode: Used to describe a scenario where a victim is surely deceased and we will not take any risk to recover the body. See above for separate definition.

Recycle: A timely and efficient means of air replacement and re-hydration of assigned companies while still maintaining their Division assignment.

Rehab: An assignment to a formal rehab location (close to the emergency scene and post gross-decontamination) where companies will be medically evaluated, rehydrated, and receive nutritional replenishment.

Rescue Mode: Personnel are performing a rescue of a person whom is in imminent danger. 2-in and 2-out is not required. Incident may either be in a fixed or working command posture.

Rescue Profile: A Rescue Profile is a method of categorizing the way firefighters look at a particular fire with regard to potential or known life hazards and any subsequent rescue actions that are/might be required.

Resource Typing: Resource typing is the categorization of resources that are commonly exchanged through mutual aid. Resource typing definitions help define resource capabilities for ease of ordering and mobilization during a disaster.

Roof Report: Ladder or engine companies assigned to the roof should provide a roof report to command soon after making access. This should include but not be limited to:

- Type of roof (peaked, flat, etc.)
- Condition of the roof (stable or unstable)
- Fire or smoke conditions (location)
- Location of any firewalls
- Heavy roof loads (if present)
- Conditions in the attic (if known)
- Basic blueprint of the building if it is unusual

Safety Officer (ISO): A member of the Command Staff responsible for monitoring and assessing safety hazards or unsafe situations and for developing measures for ensuring personnel safety.

Safety Zone: A preplanned location of sufficient size, location and access that will protect fire personnel from the fires progress without using fire shelters.

Section: The organizational level having responsibility for a major functional area of incident management, e.g., Operations, Planning, Logistics, Finance/Administration, and Intelligence (if established).

Secondary Search: A second search of the fire building. Usually completed by a different company than who performed the primary search. Usually far more thorough.

Single Resource: An individual, a piece of equipment and its personnel complement, or a crew/team of individuals with an identified work supervisor that can be used on an incident.

Span of Control: The number of individuals a supervisor is responsible for, usually expressed as the ratio of supervisors to individuals. (Optimal span of control is a ratio between 1:3 and 1:7.)

Staging Area: Location established where resources can be placed while awaiting a tactical assignment. The Operations Section manages Staging Areas.

Status Change: Companies who are changing their work location, have completed their work assignment, or need to Recycle/Rehab. This must be transmitted to their supervisor prior to making the change and requires an accountability adjustment by the Division Supervisor or Incident Commander.

Strategy: The general actions selected to accomplish incident objectives set by Incident Command.

Strike Team (NIMS): Multiple units, often five (5) in number, of the same resource category that have an assigned Strike Team Leader.

Supply Pumper: Engine supplying the Attack Pumper. Either from tank water, a fixed source or our porta-tanks.

Tactical Tender: Local term used to describe a tender that also has a rated pump, fire hose, ladders, SCBA and various basic tools. Also staffed by an officer and engineer.

Task Force (NIMS): Any combination of single resources, but typically two (2) to five (5), assembled to meet a specific tactical need.

Task Location Objective (TLO): When assigning units, the Incident Commander must identify the Task, Location, and Objective(s). The assignment has to state what the task is (stretch/advance attack lines), the location (to the front door on the Alpha side), and the objective(s) (for fire control, search, check for extension, etc.).

Temporary Refuge Area: An area where firefighters can immediately take refuge for temporary shelter and short-term relief without using a fire shelter in the event that emergency egress to an established safety zone is compromised. Examples: lee side of structure, inside of structure, large lawn or parking area, cab of apparatus, burned area.

Transitional Fire Control: One of our three offensive tactical options. Streams are directed into the building from the exterior until sufficient interior improvement allows for the interior advance to occur. The transitional fire control is carried out in very close proximity to the building with the understanding that we intend to go inside as quickly as possible.

Trench / Trench Rescue: a specialized form of rescue, a subset of confined space rescue. Trench rescue involves shoring up the sides of a trench (excavation), and digging a trapped person out of a collapsed ditch.

Type: A classification of resources in the ICS that refers to capability. Type 1 is generally considered to be more capable than Types 2, 3, or 4, respectively, because of size; power; capacity; or, in the case of incident management teams, experience and qualifications.

Unified Command: The application of ICS used when there is more than one agency with incident jurisdiction or when incidents cross political jurisdictions. Agencies work together through the designated members of the UC, often the senior person from agencies and/or disciplines participating in the UC, to establish a common set of objectives and strategies and a single IAP.

Unit: The organizational element having functional responsibility for a specific incident planning, logistics, or finance/administration activity.

Unity of Command: The concept by which each person within an organization reports to one and only one designated person. The purpose of unity of command is to ensure unity of effort under one responsible commander for every objective.

Vent Plan: A prioritized tactical list of actions to safely mitigate the ventilation needs.

Vent Point: Openings, either existing or created by us, to allow for our blowers to pressurize the fire building.

Vent Profile: The amount of air available within the compartment to sustain combustion, determined by the location and number of ventilation points; ventilation controlled vs. under ventilated vs. free burning.

Vent Size Up: The act of evaluating the ventilation needs of the involved compartment or structure. The results of the vent size up lead to a ventilation plan.

Warm Zone: The area of the incident where risk is potential but not guaranteed. Term used during firefighting and active threat scenarios with different terminology.

Withdraw: Radio term used when an orderly withdrawal of Firefighters is required and can be completed; no imminent threat exists. Personnel will gather up their tools and withdraw from the area.

Working Command: *Formerly Fast Attack.* The IC and the ICP is not fixed. Usually employed when the situation requires the immediate task level efforts of the IC to attempt to stabilize the situation. The officer is forward operating with his/her company.

Working Fire: A situation that will likely require the commitment of all responding companies. This designator advises that the companies will be engaged in tactical activities and possibly held on scene for an extended period of time.

Risk Management Plan

Medford Fire-Rescue and Fire District 3

RISK MANAGEMENT PLAN:

We may risk our lives a lot, in a calculated manner, to save SAVABLE lives
We may risk our lives a little, in a calculated manner, to save SAVABLE property
We will not risk our lives at all for lives or property that are already lost

DEFINITIONS:

"Actions in a calculated manner" require the following:

- Incident Command established
- Proper personal protective equipment
- Accountability system established
- Safety procedures in place
- Continuous risk assessment by all members

The purpose of this plan is to describe the Risk Management Plan regarding risk assessment and safety management of emergency incidents. It is important that all members operating at incidents operate in a safe manner, and as such, all members are expected to operate under the following Risk Management System.

PROCEDURE:

All operating personnel shall employ the Risk Management Plan during **all** emergency operations on **every** emergency incident. This application will be continuously re-assessed throughout the incident.

- We may risk our lives a lot, in a calculated manner, to save SAVABLE lives
- We may risk our lives a little, in a calculated manner, to save SAVABLE property
- We will not risk our lives at all for lives or property that are already lost

When considering the SURVIVAL profile of any victims, members must consider the conditions present in the "compartment" or area of fire involvement or other conditions affecting survival. A fire in a rear bedroom of a house, with smoke throughout the house may allow a survivable environment if a search and rescue effort is initiated quickly. We may extend risk, in a calculated manner, with these conditions.

A well-involved building would likely represent a zero survivability profile and little property to be saved, and members should typically avoid a high risk offensive fire fight in these conditions.

Victims buried by a trench collapse or under water for 10 minutes or more, would be unlikely to survive therefore an extremely cautious and a well-planned, safe, recovery operation is required. Rescuers should consider notification time, dispatch processing time, response time, and time on-scene as part of the calculation.

April 27, 2017

Fire Rescue Protocols - Table of Contents

ACCOUNTABILITY

KEY CONSIDERATIONS:

- These protocols can apply at any emergency scene.
- See appropriate department policy for additional info.
- **Passports are NEVER allowed to enter the Hot Zone!**

GENERAL PROTOCOLS:

1. All **Members** will work for Command, Branches, Divisions, Groups, or Crews - NO FREELANCING.
2. **Crews** arriving on the scene should remain intact for all intents and purposes. Crews working in the hot zone will have two or more members and a radio. If a radio fails while in the hot zone, the crew will exit unless there is another working radio with the crew. At no time shall a member be in a hot zone by himself/herself.
    - Exception: Rescue operations.
3. An **accountability point** will be established any time the incident has an IDLH (Immediate danger to life and health) atmosphere. The accountability point must be maintained until the hazard is no longer present.
4. Command is responsible to ensure that all crew's on the incident have a passport. Command has the option to utilize the daily shift roster as an accountability tool. All members must also have a helmet shield.

ON SCENE:

1. The **first engine** to each geographic side of the incident will become the initial accountability point for any later arriving companies to that side of the incident.
2. The **Engineer** on the first engine becomes the **initial accountability officer**. He/she will receive all passports and attach them to the driver's door of the engine ASAP.
3. **Companies** must check in and out with their designated accountability point. If the Accountability Officer (Engineer) is too busy to take your passport simply attach it to the Velcro strip on the driver's door. If a crew is exiting at a different location than their point of entry the passport must be retrieved as soon as possible. If there is to be any significant delay the accountability officer must be notified.
4. Upon arrival of IC #2 (BC or Chief Officer)- **Command** will become the accountability officer and may request assistance gathering all passports.
   If a **Division or TF/ST** leader is assigned he/she will become the accountability officer and, if not in hot zone, take possession of the passports for the area.

Effective July 1, 2018
Revised October, 2022

5. The **Safety Officer** shall ensure that the accountability system is in place and working. Any problems will be reported to command immediately.
6. **Rehab** and **Staging Officers** will not maintain the passports for crew's assigned to their areas. The IC will track company status as they move through these on scene assignments.
7. **Call Back Personnel** will either make up a passport on the reserve engine they respond with or if they report directly to the scene will have one made up by the IC or Staging.
8. If a **utility worker or civilian** is to be inside the Emergency Incident Perimeter, that person shall be escorted by a fire department member.

AIRPORT RESPONSE

KEY CONSIDERATIONS:

- Stage at gate 15 unless directed otherwise. Airport OPS may open the gate and escort you. If no OPS or Enforcement personnel available to open the gate(s), MFR Knox keys will open gate 15 and gate 37 (Commerce Drive).
- DRIVE IN WHITE LANES ONLY TO START WITH, ARFF will direct you beyond that when appropriate.
- Activate your emergency lights when inside the fence.
- BC2 and 8104 carry a portable radio with MFR tower and Aircraft COMMs capability.
- The tower has a Red / Green light gun. They may shine it at you to provide visual indication of when it is safe to move around the airport (see explanation under terminology).

PROTOCOLS:

1. When dispatched switch to **MEDFORD PRIMARY.**
2. **INSIDE Gate 15** is the primary staging area for all AIRCRAFT emergencies at the RVIA.
3. **Once inside gate 15** turn right and stage in the large open area. If you Knox into any gates, make sure the gate(s) close behind you!
    - **Do not access the property to tour or visit without first contacting ARFF for an escort.**
4. Once at the scene place your apparatus in a tactically beneficial position and **DO NOT BLOCK THE CRASH TRUCKS** – they must be mobile. Additionally, **always assume that the crash trucks can't see you**. Their visibility is very limited and they will be moving rapidly with little regard for you and your apparatus whereabouts.
5. **EMS calls ON AIRCRAFT**: Park at the front entrance of the terminal unless directed by ARFF.
6. If dispatched to an ems or fire call in a building on the airport property, proceed to that building specifically via routes **outside the fence** whenever possible. **Hanger fires** will generally be accessed from **inside** the fence via gate 15.
7. Crews are encouraged to listen in on tower and ground aviation channels (via provided radio or scanner app etc.) but talking on these channels is not allowed.
8. **Respond into the scene from staging when directed by ARFF resources.**
9. ARFF will likely pass IC to a BC when 7951 is not on scene. The ARFF Captain will be the point of contact for the BC and Captains for aircraft specific information.
10. Remember the pilot "owns" the aircraft until he/she deplanes. After that the ARFF "owns" it. The ARFF must be included in all decisions because of FAA and NTSB regulations. Include them in all planning whenever possible.
11. Airport Enforcement **can** open gates and drive in the white vehicle lanes. They **cannot** drive on runways or taxiways.

TERMINOLOGY:

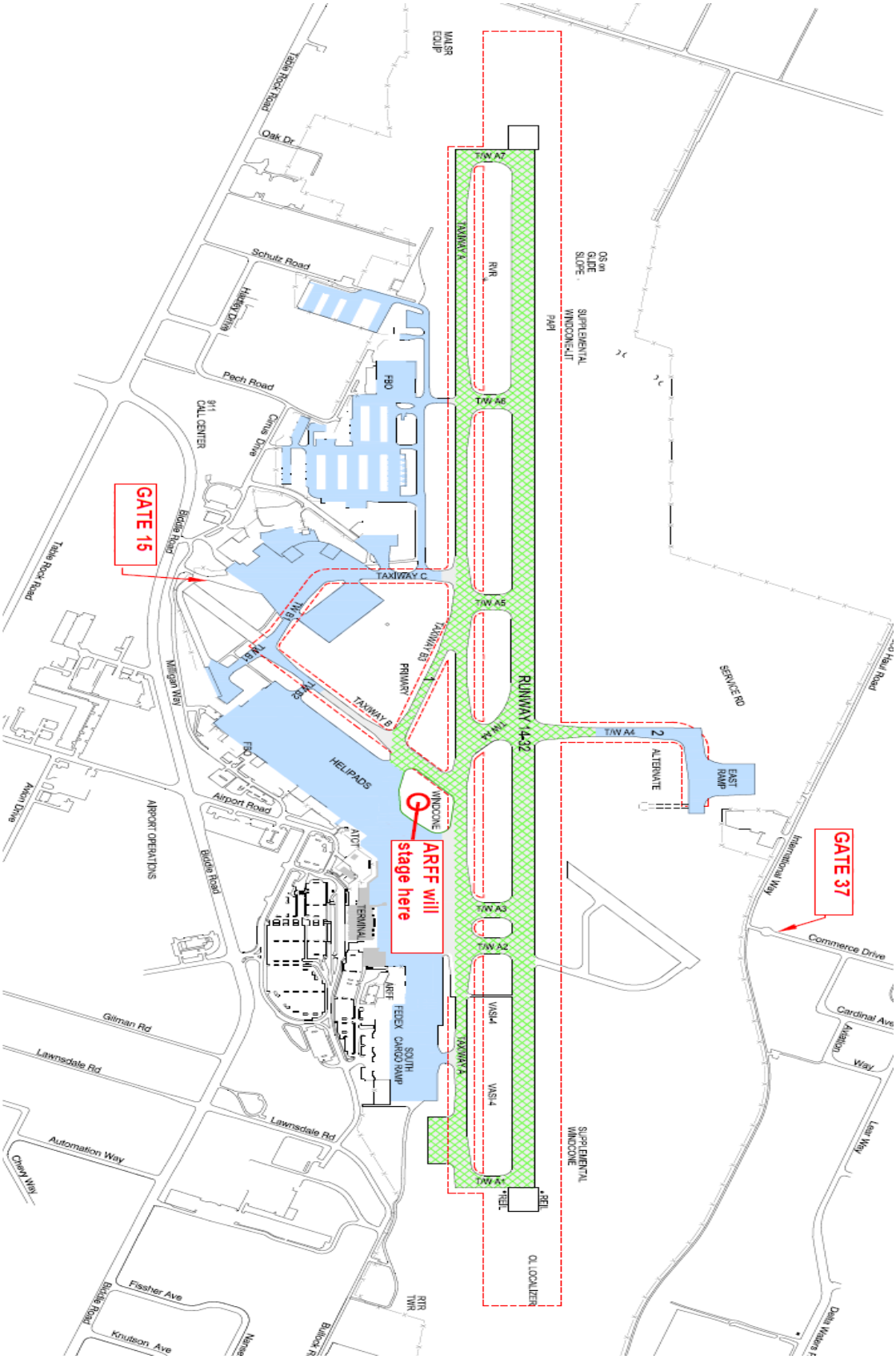
1. **ANCHORED IN:** ARFF apparatus no longer needs to be mobile. Additional hose lines can be connected to and from the crash trucks at this point only.
2. **RECOVERY MODE**: Emergency is stable but the aircraft cannot be moved until released by the FAA and NTSB. Once authorized by the FAA and NTSB the aircraft can be "recovered". Mutual aid companies may be released at this time.
3. **Commercial Aviation Aircraft**: Generally multi-seat aircraft operated for hire to transport passengers or cargo (non-military).
4. **General Aviation (GA):** All civilian aviation operations other that scheduled air service (primarily private aircraft).
5. **Light Gun Signals** (Light gun kept in the tower for visual direction if radios are down):
   Steady Green – Clear to cross, proceed, or go
   Steady Red – Stop
   Flashing Red – Clear the taxiway/runway
   Flashing White – Return to your starting point; this is generally where you started before entering the movement area (the yellow and yellow checkered line).
   Alternating Red and Green – Exercise extreme caution

Alert Levels	
Alert 1	An aircraft that is known or suspected to have an operational defect that should not normally cause serious difficulty in achieving a safe landing. **Examples of Alert I incidents include dash warning lights with no other indicator of aircraft problem, engine power fluctuations, minor icing, poor or no communications, low fuel,** or other circumstances or events that meet the intent of this section.
Alert 2	An aircraft that is known or is suspected to have an operational defect that affects normal flight operations to the extent that there is danger of an accident. **Examples of Alert II incidents include engine failure, hydraulic or electric power failure, active fire, inoperable landing gear, structural damage including damage to windows or doors, heavy icing,** or other circumstances or events that meet the intent of this section.
Alert 3	An aircraft incident or accident that has occurred on or in the vicinity of the airport. **The primary example of an Alert III is any aircraft crash. An Alert III also includes brake fires, fires on-board occupied aircraft that are on the ground, and other occupied aircraft incidents or accidents.**
Alert 4	All other emergencies that cannot be categorized above, including aircraft incidents that do not meet the definition of accidents **but that may include significant damage to the aircraft. Examples of Alert IV incidents include emergency medical service (EMS) incidents, both within aircraft, and at or near the airfield, structure fires, fuel fires, aircraft fires such as APU and GPU fires, hazardous materials spills, vegetation fires, and other emergencies.**

AIRPORT RESPONSE

Response Plan – All Alerts from above get a first alarm to start and will be upgraded by ARFF / IC.	
1st Alarm	1 ARFF, 1 engine, 1 BC, 2 law,1 Mercy unit,1 Mercy Sup, RVIA OPS & Security
2nd Alarm	4 engines, 1 Tender, 1 BC, 1 law, 1 Mercy unit & Hospitals notified
3rd Alarm	2 engines, 1 tender, 1 ECSO rep, FDBC, and Jackson Co. Emergency MGMT.
4th Alarm	2 engines, 1 PIO

AIRPORT RESPONSE



APPARATUS BACKING

KEY CONSIDERATIONS:

- If no spotter is available, the driver shall complete a 360 walk-around before backing.
- Remove headset and roll down the windows.
- See standard hand signals below.

PROTOCOLS:

1. Avoid backing whenever possible. Spotter use is **mandatory** when available. Use spotters for:
    - Backing
    - Forward turns with restrictive side clearance.
    - Uncertain height clearance.
2. One spotter is the minimum. Consider using multiple when available and place them at as many corners as possible.
    - The left rear spotter is the primary spotter, when only one is used this is the default position. If another position is more advantageous use it.
3. Spotters shall not ride tailboard.
4. Driver and spotters will discuss the backing plan before moving. Spotters should avoid conflicting signals and be equipped with a portable radio.
5. Anytime the driver loses sight of the primary spotter the apparatus shall be immediately stopped. If the spotter needs to recon an area stop the driver first.
6. When backing where pedestrians and other vehicles are present turn on warning lights.
7. Do Not temporarily disable the back-up alarm on the vehicle, exception on the ramp at the hospital if necessary.
8. Spotters shall carry a flashlight at night or when necessary.
9. Apparatus backing is a team sport. Officers are responsible for the complete adherence of this protocol.

APPARATUS BACKING

BACK UP STRAIGHT / DRIVE STRAIGHT FORWARD: (Palms face the direction of desired travel, arms are bent and move repeatedly towards and away from spotter head.)

TURN: (The rear of the vehicle should travel in the direction the stationary arm is pointing, the other arm is bent and move repeatedly towards and away from spotter head.)

STOP: (Hold arms and hands straight out to one side of the body (in the drivers view); hands facing each other. Indicate the approximate stopping distance remaining. Close hands as driver approaches your target stopping point. When hands touch driver should immediately stop!)

ASHER (Active Shooter/Hostile Event Response)

KEY CONSIDERATIONS:

- Don't let traditional triage and treatment get in the way of rapid extraction and transport of patients.
- Assign the Contact Teams and Rescue Task Forces their own tactical frequencies; don't forget to let command know of critical communications.
- Not all Fire/EMS agencies will be outfitted with ballistic PPE.
- Assign Law Enforcement to secure the Casualty Collection Point (CCP).
- Collect and hold all persons involved in the incident at a location that has been cleared.
- Secure the scene and prepare for the recovery stages.
- The reunification process and release of information can quickly overwhelm a command structure. Staff the functions early and appropriately.
- Our own response vehicles often become the greatest hindrance to rapid transport. Consider dispatching tow trucks.
- Rapid transport may be successfully achieved by means other than ambulance.

This protocol is in place to coordinate response and identify the initial actions to be taken by Law Enforcement (LE) and Fire Department personnel **during the first 30 minutes** of an ASHER event.
It will be the responsibility of all LE and FD personnel to be familiar with and practice these guidelines as set forth.

PURPOSE:

All too often, active shooter incidents victims perish of potentially survivable injuries while awaiting medical treatment. Quick actions to open the airway, control external hemorrhage, and prevent tension pneumothorax on the part of first responders, bystanders and the wounded themselves can provide effective, lifesaving, first-line treatment in what remains a critical step in reducing preventable prehospital death.

As timeliness is such an issue, early deployment of fire department personnel into warm zones to render immediate lifesaving care is a high priority. This follows our long standing philosophy of "accepting increased risk to save savable lives". This increased risk will be minimized by jointly training responding personnel to operate in this environment with protection from a law enforcement security detail, while fire/ems personnel provide wound care and extraction.

The following protocol has been jointly adopted by all Jackson County Law Enforcement and fire agencies to swiftly neutralize the threat and increase survivability of those impacted. This protocol does not provide the guidance for reunification, release of information, or recovery.

TERMINOLOGY:

Active Shooter (AS) aka (Threat): Any armed person who uses or has used lethal force on other persons and continues to do so while having unrestricted access to additional victims.

Casualty Collection Point (CCP): An area designated by command that will be used to collect the injured. The CCP may act as the jump off point for RTFs early in the incident. The CCP should be located in an area that can be secured by dedicated LE personnel.

ASHER (Active Shooter/Hostile Event Response)

TERMINOLOGY CONTINUED:

Clear(ed): An area that during an initial sweep revealed no immediate or direct life threat. Area should be considered to be in the warm zone. Law enforcement may or may not maintain a presence in a cleared area.

Cold Zone: Areas where there is little or no threat, due to distance, shielding and or secured by LE (i.e. Casualty Collection Points, UCP).

Contact Team (CT): Initial LE teams of 1 to 4 officers who form immediately on arrival to a scene and deploy into the Hot Zone, moving rapidly with objective of initiating contact to contain, distract and/or eliminate the active shooter to prevent further injury or loss of life.

Contact Team Group Supervisor (CGS): LE member who assumes overhead position early in the incident to direct and coordinate the operations of the CT(s). The CGS will most likely serve as the "LE" side of the initial unified command structure.

Hot Zone: Area where there is known hazard or life threat that is direct and immediate. An example of this would be any uncontrolled area where the active shooter could directly engage a RTF team. RTF teams will not be deployed into a Hot Zone.

Protected Corridor Operations: A warm zone response concept in where LE forms a secure path through which fire and EMS responders can care for and extract victims.

Protected Island Operations: A warm zone response concept in where LE forms a secure perimeter around fire and EMS responders.

Rescue Task Force (RTF): A team of both Fire and LE personnel (4-6 members) deployed in the Warm Zone. LE provides force protection while Fire provides wound care to victims. These teams treat, triage, stabilize, and extract the injured.

Rescue Group Supervisor (RGS): Fire department member who assumes overhead position early in the incident to direct and coordinate the operations of the RTF(s). The RGS will most likely serve as the "Fire" side of the initial unified command structure.

Security Detail: Previously trained LE component of a RTF that provides protection for fire department personnel.

Tactical Emergency Casualty Care (TECC): The evidence-based best practice guidelines for trauma care that make up the standard of care in prehospital trauma cases.

Treatment Area: The area in the Cold Zone where patients are brought from the CCP for triage, treatment, and transport to a medical facility.

Unified Command (UC): An incident command system where both Fire and Law Enforcement (LE) agencies provide commanders to manage an incident by establishing a common set of incident strategies and objectives.

ASHER (Active Shooter/Hostile Event Response)

TERMINOLOGY CONTINUED:

Unified Command Post (UCP): Location from where unified commanders will establish command and direct tactical control of an incident. In many cases the UCP will be the Chief Officers vehicle. The UCP should be located in the Cold Zone.

Warm Zone: Areas that LE have cleared where there is minimal or mitigated threat. This area can be considered clear but not secure; this is where Rescue Task Forces deploy to treat and extract victims.

Secure(d): An area that has been determined free of any immediate or direct life threats and a presence is maintained by law enforcement.

PRIORITIES FOR INITIAL ACTIONS:

Priorities and primary goals during the first 30 minutes are:

- **Deny the threat access to additional targets**
- **Rapidly access victims for TECC treatment**
- **Establish a unified command**
- **Rapidly extract and transport victims to the hospital**

PROTOCOL FOR INITIAL ACTIONS:

1. Following dispatch, all incoming units will switch to the primary LE agencies primary radio frequency (Table 1). Fire personnel will monitor the frequency for situational updates and refrain from transmitting unless emergent. Fire agencies will establish command on their primary tactical channel.

Jurisdiction	Law Frequency	Fire Frequency
Ashland	Ashland Main	AFD Primary
Medford	MPD Primary	Medford Tac RPT
Central Point	MPD Primary	RV Tac 1
All other surrounding areas	JCSO Primary	RV Tac 1
Southern Oregon Veteran's Rehabilitation Center	JCSO Primary	RV Tac 1

2. Arriving LE personnel will attempt to engage the threat while forming into Contact Teams (CT). Once a team has been formed the senior-ranking member of the CT will announce their name, the number of personnel, and location. Example, "*Contact Team Whipple with 3, entering Taylor Hall 1st floor from the West*".
3. A Senior Officer will assume Incident Command and establish a Command Post in the Cold Zone.
4. One of the first arriving ranking Law Enforcement Officers will join with the Senior Officer to establish Unified Command.
5. Unified Commanders will assume the roles of Contact Team Group Supervisor (CGS) and Rescue Group Supervisor (RGS) in each of their disciplines (LE and Fire). These roles may be delegated to others as additional Chief Officers arrive at the UCP.

6. UC shall establish a Casualty Collection Point (CCP). It will be beneficial if the CCP is adjacent to the Warm Zone and next to a street that can be used by responding ambulances.
7. Incoming Fire Department personnel will report to staging with appropriate PPE and Active Shooter Medical Kits. A CCP or treatment area may already be established; units may be assigned directly prior to arrival. Stage out of the way; do not block roadways near the CCP or Treatment Area (keep lane clear for ambulances).
8. At whatever point the CGS identifies that there are enough resources engaged or pursuing the threat they should assign further incoming LE personnel to the CCP for protection of Fire personnel. Do not block roadways near the CCP (keep lane clear for ambulances).
9. As soon as feasible, Fire and LE personnel will form into Rescue Task Forces and respond into the Warm Zone. The senior ranking LE member will contact command and announce their name, the number of personnel and location. Example, "*Rescue Task Force Parks with 5, entering Taylor Hall 1st floor from the West*".
10. Conduct a primary search of the Warm Zone, triage victims that might be injured and/or in hiding.
11. Perform rapid TECC treatment and/or extraction of victims.
12. Implement the Jackson County Fire / EMS Agency Mass Casualty Incident Protocol. Transporting agencies priority will be the rapid transport of victims.

AUTOMATIC FIRE ALARMS

KEY CONSIDERATIONS:

- Code 1 response; unless an exception from below is met.
- If additional information indicates an actual fire the Company Officer shall immediately upgrade to Code 3 and request a full Structure Fire alarm assignment.
- Consider Force Entry Protocol.
- CHECK FOR A KNOX BOX.
- Consider the use of Courtesy Locks to secure the facility.

PROTOCOLS:

1. **Respond Code 1. Company officers are authorized to upgrade to Code 3 if additional information is available, such as**:
    - Water flowing at the location of the Fire Alarm, or a water flow alarm is sounding.
        - Except after a freeze / thaw event.
    - Reports of smoke, flames or signs of fire at the location.
    - Escalating number of alarms sounding
    - Both burglar **and** fire / smoke detectors sounding (but consider law too).
2. Determine from dispatch the type of alarm and area covered.
3. Complete Arrival Report.
4. If responding to a business after hours, contact responsible party through ECSO.
5. Complete a 360° and broadcast a Follow-Up Radio Report.
6. **If you have found no issue after a 360° follow-up and reasonable visual inspection of the interior (looking in the windows etc.) then the company can clear if no entry is made and a Responsible Party (RP) is enroute**.
7. If entry is made and no incident is located, wait for up to **20 minutes** for the responsible party to arrive prior to departure. You **MUST** secure the building prior to clearing the scene. Make a comment in the CAD detailing your actions. **After securing the building make your engine available in CAD.**
8. If destructive entry was required, notify your BC (see Force Entry Protocol).
9. If the responsible party has an ETA of more than 20 minutes **and** the building cannot be secured contact your BC for instructions.

CANCER RISK REDUCTION PROCEDURES

KEY CONSIDERATIONS:

- A series of small steps to limit exposure to contaminants can greatly reduce the risk of cancer in fire department personnel.
- Consider ANY products of combustion carcinogenic (both seen and unseen).
- Take every effort to limit exposure and do not breath smoke or engine exhaust.

Firefighting Turnouts & Uniforms:

- All firefighting personnel will be issued two sets of firefighting turnouts (which includes two hoods, two sets of firefighting gloves, and extra helmet hardware). The backup set of turnouts shall be kept clean and ready to utilize whenever the primary set of turnouts is contaminated.
- Firefighting turnouts (including hood/gloves/helmet hardware) shall be laundered immediately after every structure fire involving any smoke contamination. If smoke can be smelled on turnouts, then they should be laundered.
- Firefighting helmets should be kept clean and free of smoke buildup.

Fire Station Procedures:

- All fire stations will have a blue painted line on the floor delineating the "clean" living area of the station, and the "dirty" work area of the station. All PPE shall remain in the "dirty" work area of the station, and no PPE shall be worn or carried across the blue line into the "clean" living areas.
- As much as possible, personnel shall not breathe engine exhaust, particularly in the apparatus bays of the station. Every effort shall be taken to limit exhaust accumulation inside the station such as the use of station exhaust fans, keep apparatus bay doors open when possible, etc. When possible, allow the apparatus bay to sufficiently ventilate before closing all of the doors and take care to limit engine exhaust drifting into the "clean" living areas of the station.

On-Scene Procedures:

- All personnel should take immediate action on scene in order to not breathe any amount of smoke or engine exhaust. Move up-wind, away from the scene, or utilize an SCBA to eliminate smoke or exhaust exposure. The highest risk may be personnel standing outside of the burning structure.
- After initial fire knockdown, letting the structure cool down for up to 60 minutes will significantly limit carcinogenic exposure to personnel. If possible, pull back personnel during this cooling time before finishing overhaul.
- All personnel working inside of a structure fire shall go through a gross decontamination process following firefighting activities. This will typically involve a full rinse down with a booster hose or a general purpose hose (if available) and soap prior to disconnecting your 2nd stage regulator. This should occur near the entry point of the structure.
- Personnel working on the scene of a structure fire shall utilize the SCBA according to the policy on SCBA Use.

CANCER RISK REDUCTION PROCEDURES

Post-Scene Procedures:

- Every effort should be made to eliminate contamination into the cab of the apparatus.
- Every effort should be made to remove contaminated clothing/PPE as soon as possible (if appropriate). Personnel are encouraged to carry an extra T-shirt/sweatshirt to change into following on-scene decontamination.
- Personnel should strive to shower within an hour after becoming contaminated at an incident. Utilize on-scene wet wipes, booster line, general purpose hose, or warm water rinse with soap prior to leaving the scene.
- After a gross decontamination process, contaminated turnouts shall be bagged in large garbage bags for transport back to the station.
- After a gross decontamination process, contaminated SCBA's shall be bagged in large garbage bags for transport back to the station.
- Decontaminated SCBA's should be left outside of the apparatus cab to dry and off-gas. SCBA's from reserve engines may be utilized during this process.

CARBON MONOXIDE EMERGENCIES

KEY CONSIDERATIONS:

- Over 50% of CO poisoning cases are misdiagnosed as something else. **Your next CO emergency scene will likely be dispatched as something else. Be heads-up**.
- Has a very wide ignition range. It is big enough to warrant control of ignition sources.
- CO sources cycle on and off automatically. If the CO alarm has stopped sounding remember the problem may restart when the source turn-on again. Be vigilant.
- Colorless, odorless, tasteless, and non-irritating.
- PRIOR TO CLEARING THE SCENE - ISSUE A COMPLETED CO NOTICE TO THE OCCUPANT.

PROTOCOL:

1. **Respond Code 1. Company officers are authorized to upgrade to Code 3 if additional information is available, such as reports of EMS patients requiring assistance.**
2. Minimum PPE is turnouts with SCBA until CO is determined to be below 35 PPM.
3. Turn-on 4 gas detector to allow it to cycle-up while enroute.
4. Upon arrival **calibrate** your 4 gas detector to **CLEAN AIR.**
    - **Move away** from your fire engine and the suspect building to an area you are **certain does not contain CO**.
5. Check/question occupants for symptoms.
6. Sample at the entrance. **IF CO is found to be above 35 ppm anyone entering the structure shall be "on-air"**.
7. Continue to sample at various heights throughout the building.
8. Sample near the CO alarm if applicable. Sample in and around all items that use or cause combustion.
    - Stoves, BBQ's
    - Fireplaces
    - Furnaces, boilers
    - Hot water heaters
    - Gas dryers, refrigerators
    - Unvented appliances, and space heaters
    - Pool / Spa heaters.
    - Void spaces
    - Utility rooms
    - Vehicles
    - Chimneys
    - Attic / crawl spaces
9. If CO is found call for assistance from the gas company. They can assist with investigation and leak control even when non-gas related.

CARBON MONOXIDE EMERGENCIES

Findings and Actions:

0-9 PPM	• Inform occupants that our detection equipment **DID NOT** find an elevated level of CO • Check detector • Have occupants re-notify 911 if situation returns
9-35 PPM	• Inform occupants that a **potentially dangerous** level of CO has been detected. • Evacuate the building • **Investigate and shut off ALL potential causes. *Once shut down <u>we will never restart gas appliances</u>. See Incident Utilities protocol.*** • Ventilate the building. Use electric blowers if possible. • **Once level is 9PPM or less occupant's re-entry is at their discretion. Inform them of the risks. Refer to the gas company/appliance service professionals.**
35 PPM or Greater	• Inform occupants that a **potentially lethal level** of CO has been detected. • Evacuate the building • **Investigate and shut off ALL potential causes. *Once shut down <u>we will never restart gas appliances</u>. See Incident Utilities protocol.*** • Ventilate the building. Use electric blowers if possible. **Once level is 9PPM or less occupant's re-entry is at their discretion. Confidence that the CO source has been eliminated must be 100%. Inform them of the risks. Refer to the gas company/appliance service professionals.**

CHIP BIN FIRE

KEY CONSIDERATIONS:

- Ensure you are looking for extension in the blowpipes, building and other bins. Use your TIC.
- Light smoke from the bin can be deceiving. Violent fire behavior is possible when contents are dumped out.
- Coordinate with onsite experts (Millwrights).
- Bag house fires are similar but offer additional challenges and risk – coordinate with facility staff.
- Blowpipes are engineered for the weight of the product they carry, not the weight of excessive water. Be mindful of the amount water you are spraying in blowpipes.

PROTOCOLS:

1. Provide Brief Arrival Report and begin 360°.
2. Size-up considerations:
   - How did the fire get into the bin?
   - How much material is in the bin?
   - What type of material is in the bin? (green vs. dry chips vs. sander dust)
   - Weather factors
   - What is the normal plan at this facility – what has worked in the past?
   - Fire extension
   - Fire on the outside of the bin?
3. Deploy initial hose lines to confine the fire to the bin; deal with extension or exposures first. Avoid using facility supplied hose lines whenever possible. **1 ¾" line is the minimum.** Consider a **2 ½"** line when potential fireball size or other conditions indicate a larger than normal event is possible.
4. Stretch lines to control the fire when dumping the bin.
   - Lines should be pulled to allow overlapping fog streams to cover the drive-through openings at the ends of the bin and encapsulate as much of the fireball as possible.
5. Stretch and staff a protection line for the firefighter assigned to operate the bin hydraulics.
   - **The clamshell is generally controlled hydraulically, usually from the cat-walk on the side of the bin. The controls often will make it difficult to "feather" the opening and can lead to a large release of product. *Strongly consider manual overrides first.***
   - The Firefighter assigned to operate the controls **shall** utilize a SCBA and be "on-air" anytime they are on the catwalk regardless of how minor the incident seems.

6. Consider placing an aerial stream to extinguish exterior fire or assist with water delivery into the top of the bin. Also consider the aerial for hand line operation to elevated blowpipe access points.
7. Consider stretching additional lines to the upper catwalk and opening the access hatches.
    - Get the correct wrenches form the Millwrights if possible. They will know the bolt size and pattern, etc.
8. Dump the bin while hose lines flow water onto the material. Waiting to open the hose line until fire is visible will often be too late. Washout the inside of the bin when empty to ensure no embers remain. **Limit runoff, saw dust mixed in water may clog the facility storm drains.**
9. Coordinate with onsite staff for the removal of the material on the ground. Remember that heavy equipment driving through the pile can agitate the material enough to cause another ignition. Closed cab machines are preferred and **provide a radio to the equipment operator.**
10. Depending on the severity of the incident we will push the management of the problem back to the facility as soon as possible and practical. Generally industry is quite capable of handling after the initial extinguishment efforts and the bin has been emptied.

CIVILIAN FIRE DEATH

KEY CONSIDERATIONS:

- Actual identification of victims will be left to the appropriate Medical Examiner and **no statement referring to the victim's identification or cause of death will be made by any company members.**
- Treat these events like a crime scene.
- Evidence preservation should be considered in all tactics.

PROTOCOL:

1. **If a fire death victim is discovered during fire scene operations, the Incident Commander will immediately notify the following:**
   A. The law enforcement agency having jurisdiction.
   B. The Fire Chief, Fire Marshal and the Duty Investigator.
   C. The department/district Chaplain.

2. **A victim may be removed only if the body will be subject to additional insult.**
   A. If moving the body is necessary, coordinate the movement with a law enforcement representative.
   B. Only move a body far enough to protect it.
   C. Take pictures of the location and position of the body so an Oregon Fire Casualty Report can be completed with a drawing depicting the position of the victim when found.

3. **If moved outside the structure, the body will be covered and the scene custody is maintained. Before the body is moved:**
   A. Take mental notes;
   B. Create sketches;
   C. Take photographs

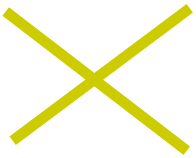
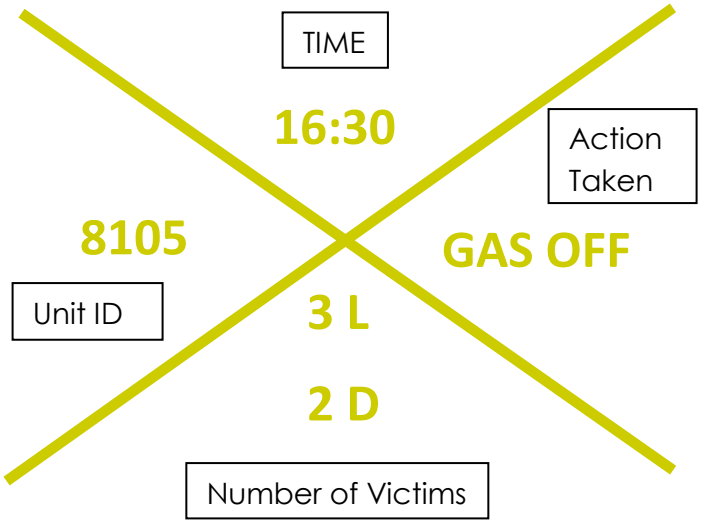
4. **All persons assigned to the immediate area of the structure or having knowledge relevant to the fire shall fill out a supplemental report or RMS narrative documenting all actions and observations made per department policy.**

DISASTER MARKINGS

KEY CONSIDERATIONS:

- Building markings are best accomplished with lumber crayons or spray paint – but conspicuously visible is the goal. Use what you have.
- It is understood that crews may lack formal training in this arena. This is a resource intended to allow us to start to operate with consistency in a disaster AND to allow us to interface with what USAR teams will be doing.

USAR Building Assessment (Structural Integrity)	
2'x 2' box at **ALL** normal entry point	
	Structure is accessible and safe for search and rescue operations. Damage is minor with little danger of further collapse.
	Structure is significantly damaged. Some areas are relatively safe, but other areas may need shoring, bracing, or removal of falling and collapse hazards.
	Structure is not safe for search and rescue operations and may be subject to sudden additional collapse.
	Arrow located next to marking box; indicates the direction to the safest entrance to the structure should the marking box need to be made remote from the indicated entrance.
HM	Notes a Hazardous Material is present. Note the type.
EXAMPLE:	
 4/20/80 0530 HM- PROPANE FF Carlson	Include Date, Time, Hazards and rescuer ID

FEMA Victim Assessment Markings	
2' x 2' markings in a **conspicuous** location	
Single slash drawn upon entry to an area indicates search operations are currently in progress.	
Crossing slash drawn upon search personnel exit from the structure or area.	
Distinct markings will be made inside the four quadrants of the "X" to clearly denote the search status and findings at the time of this Assessment.	
EXAMPLE:	
	

DUMPSTER FIRES

KEY CONSIDERATIONS:

- Park UPHILL AND UPWIND whenever possible.
- What is in the dumpster? What kind of facility are you at?
  - Dumpsters at **exotic locations** (metal foundry / industrial facility / mills) have **exotic contents** – watch out and be careful with water application.
- Always apply water from a distance to start, no need to walk up right away.
- BE READY FOR ANYTHING**. THERE IS NOTHING WORTH SAVING IN A DUMPSTER!**
- Large containers or challenging overhaul scenarios– think about water supply and additional companies early.

PROTOCOLS:

1. **Respond CODE 3** unless absolutely confirmed to be away from all exposures.
2. **There is nothing worth saving in a dumpster**. Approach cautiously every time.
3. Extinguish dumpster or protect exposures first? Both?
4. ALWAYS apply water from a distance to start when water is indicated.
5. Consider foam and dry chemical agents.
6. SCBA use is MANDATORY when approaching and working in close proximity to the vessel.
7. Take note if extinguishment is difficult – ask **WHY?**
8. Use remote extinguishment techniques whenever possible.
9. Overhaul thoroughly.
10. Call for Duty Investigator.

Hazards to Consider:

- May contain Class A materials to propane tanks to hazardous materials – **anything is possible**.
- Every dumpster fire is a potential bomb.
- Exotic metals (white smoke and white flames, generally violent reactions when water is applied).

ELECTRICAL HAZARD INCIDENTS

KEY CONSIDERATIONS:

- CONSIDER ALL DOWNED LINES ENERGIZED UNTIL POWER COMPANY SAYS OTHERWISE.
- Consider conductivity of surrounding objects (guard rails, fences, wet ground, road striping, etc.)
- We SHALL NOT enter any electrically energized areas without first consulting with the power company.
- Request the power company response ASAP; you can always cancel them later.

CONSIDERATIONS:

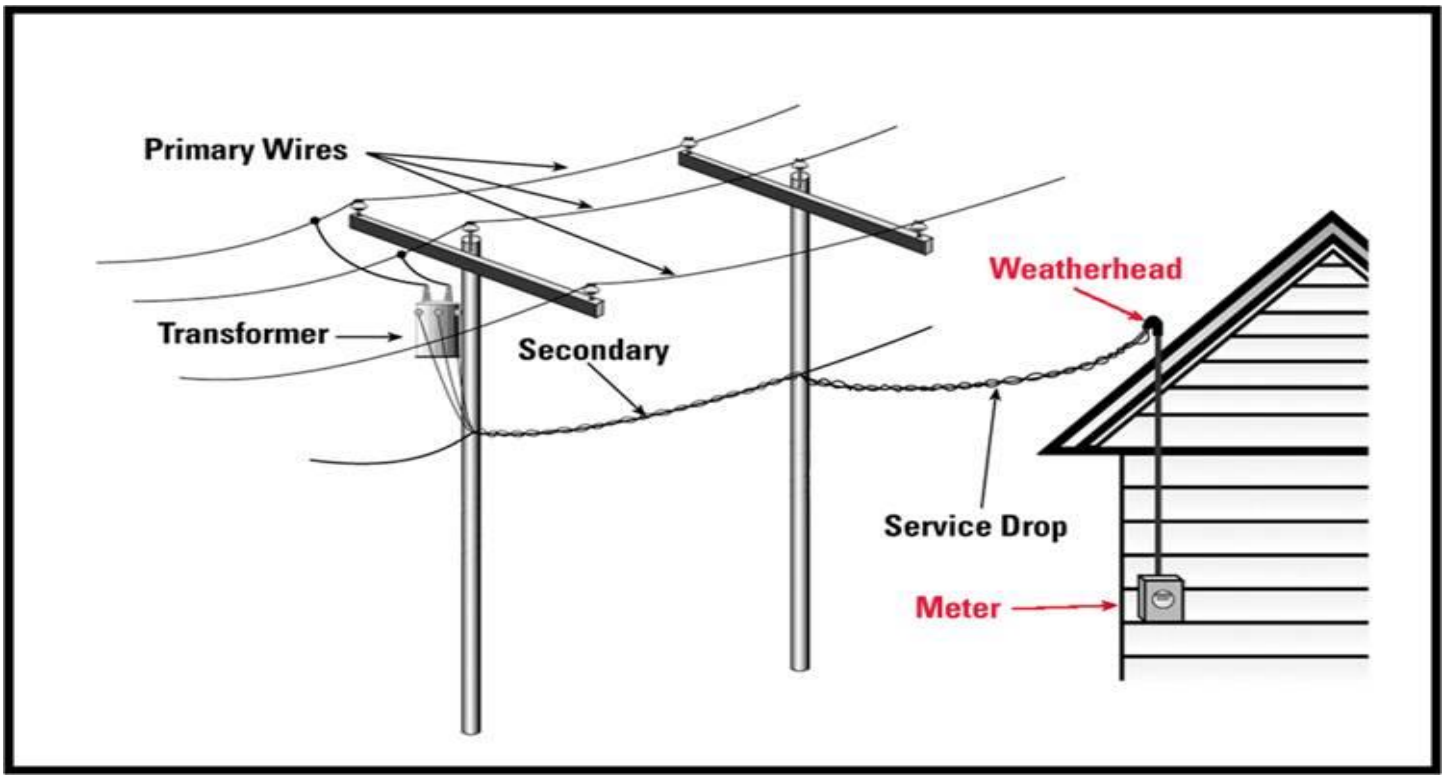
- Utility employees often secure points of entry and egress and work alone.
- Powerlines can be energized through inductions from parallel lines or back-fed by auxiliary sources (generators, solar, etc.).
- Transformers can contain 60-1000+ gallons of transformer oil (polychlorinated biphenyls), which has a **flash point of +/- 300°F**. Consider HAZMAT 8 for consultation.

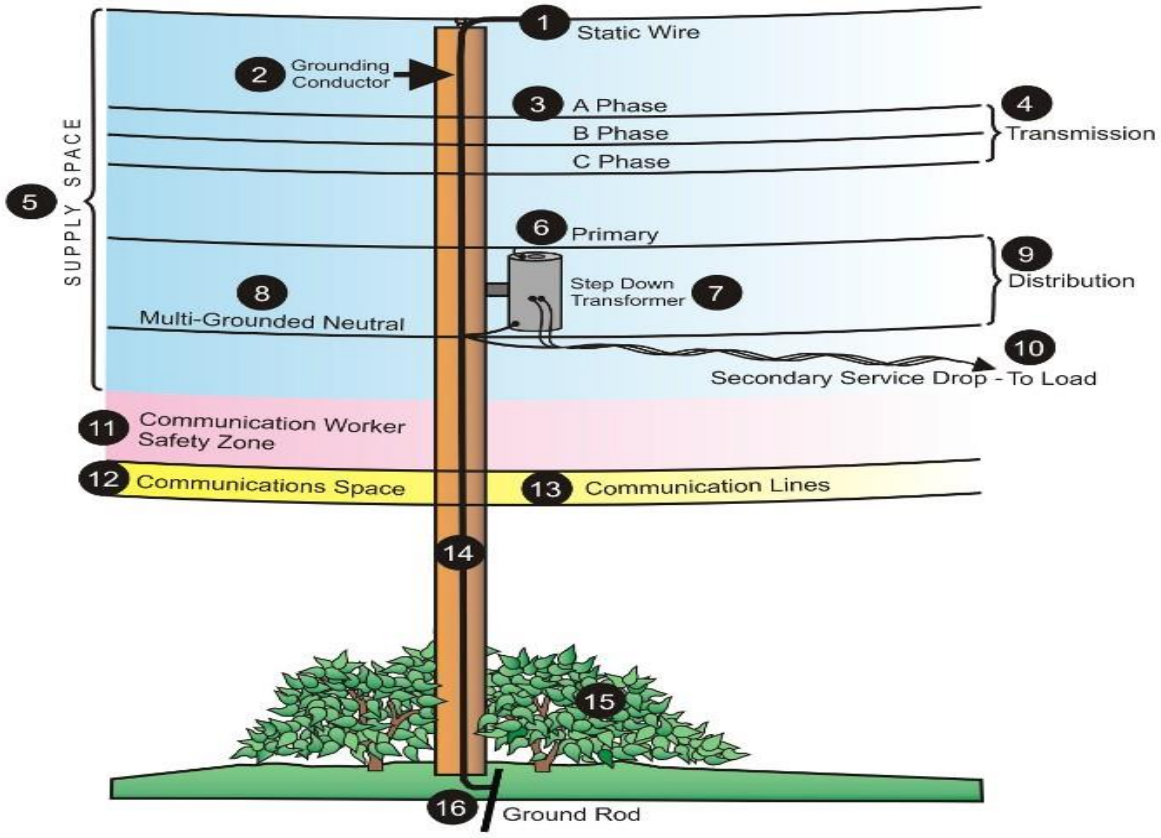
PROTOCOL:

1. Companies shall stay on scene until the IC is confident that our presence is not needed to secure the area. Use scene tape, notify the nearby property owners, and take other prudent means to reasonably secure the area. **Confirm the power company is at least notified before clearing.**

	Minimum Perimeter (Use Life Hazard Tape)	**Protocol**
Service Drops	**10 feet**	• Attempt to locate shutoffs • Prepare for power company arrival • Keep IC and on-scene crews informed • Have ECSO announce status on operational frequencies.
Primary or secondary Lines	**At least same distance as downed section is long.**	
Substations	**Fenced area until power company advises**	• Do not enter substation until cleared by power company • Have an escort up to the IDLH • Protect exposures outside the yard • Strongly consider conductivity of runoff • Stay clear of incoming and outgoing overhead lines • NO FOAM until power company authorizes • FOG PATTERNS ONLY
Transformer vaults	**Dependent- stay away from other manhole covers in area.**	• **When a transformer vault fire occurs the damage is usually immediate and irreversible** • Focus of isolating the area and limiting extension • NO ENTRY to the vault for extinguishment without approval. Probably a confined Space. Provide LOTO.

References:


Primary Wires
Transformer
Secondary
Weatherhead
Service Drop
Meter


1 Static Wire
2 Grounding Conductor
3 A Phase
B Phase
C Phase
4 Transmission
5 SUPPLY SPACE
6 Primary
7 Step Down Transformer
8 Multi-Grounded Neutral
9 Distribution
10 Secondary Service Drop - To Load
11 Communication Worker Safety Zone
12 Communications Space
13 Communication Lines
14
15
16 Ground Rod

ELEVATOR RESCUE

KEY CONSIDERATIONS: TRT PLAN ALSO AVAILABLE

- MFR has a firefighter key ring on all engines. FD3 keeps the appropriate key in the EMR.
- Elevator rescues that involve rope systems are Technical Rescues.
- Only a service tech or building maintenance representative can restore service.
- Some portions of the shaft are most likely Confined Spaces.
- Request Mercy Flights

PROTOCOL:

1. Determine if the situation is emergent or non-emergent
   - Emergent:
     - Fire in the building
     - Life threatening medical emergency
     - Occupants beginning to panic and cannot be calmed
     - Environmental:
       - Hot/cold environment
       - Earthquake
       - Flooding
       - Extended power outages due to severe weather
       - Delayed response by elevator service technician because of any of the above.

   If the "Emergent" definition is not met and an elevator service technician is responding within a reasonable time frame, it will be considered non-emergent.

2. A non-emergent elevator assist can be handled at one, or a combination of the following levels:

Awareness level:

Simple primary removal procedures done without turning off the elevator power.

1. Call elevator service technician if not already done.
2. Make contact with occupants of the stalled elevator by intercom, cell phone, or voice and advise them of the plan, keep them updated; this may reduce anxiety and panic.
3. If occupants are ringing bell, instruct them to stop.
4. Identify the location and condition of the elevator car.
5. Determine the number of occupants and triage their condition; an assist or emergency?
6. If occupants have activated the emergency stop button they must be instructed to deactivate it.
7. Ask them to push the "Door Open" button.
8. Call the elevator using the elevator call button in the lobby.
9. Instruct occupants to insure the car door is fully closed. Have an occupant push the door towards the closed position.
10. Have firefighters physically push close all hoistway doors.
11. Access EMR (elevator mechanical room) and locate the firefighter key.
12. Attempt to use firefighter's service recall from the lobby. (Phase 1 - recall)

Operations Level Tactics:

1. Get an ETA from the elevator repair technician.
2. Communicate the plan to the car occupants.
3. Access EMR (elevator mechanical room) and elevator control panel. Establish contact between EMR and elevator. Use of phones is preferable, if radio must be used stay four feet from electronic components.
4. Shut off electrical power to elevator, wait 30 seconds and restore power (this is the only time power will be restored).
5. If the elevator has not started on its own, repeat primary steps.
6. If the elevator did not respond, shut off the elevator power utilizing the lock-out/tag-out procedures for the specific car and place a firefighter at EMR for the duration of incident.
7. Using elevator key or tool, open hoistway door to determine location of the elevator.
8. For floors without key access, use the "poling" technique from the floor above.
9. If the car is level with landing, open car doors to access occupants.
10. If the car is more than 3 feet above landing, barricade the bottom opening.
11. If the car is more than 3 feet above the landing, send fire/rescue member into car prior to allowing occupants to leave the car to assist.
12. Use appropriate safety/belay technique with occupants prior to removing them from the car.
13. Hydraulic elevator: Bleed fluid to lower car to closest floor (maintain communication during this and all operations involving potential movement of the elevator car).

Technician Level:

In an extreme emergency and the above techniques are not successful and the elevator service technician is ***not*** able to respond or response is delayed the following technician level tactics may be deployed. ***Technician level tactics involve members working in the shaft.***

1. Communicate the plan to the car occupants.
2. Confirm the power is shut-off.
3. Shut down and lock-out adjacent elevator if applicable. This must be done in congruence with lock-out/tag-out procedures in the case of a shared, open shaft.
4. Open hoistway door above stuck car using key or poling technique as needed.
5. Don appropriate PPE.
6. Access the car's top emergency access panel using attic ladder as needed.
7. Shut off the power switch on top of the car.
8. Turn on auxiliary light.
9. Locate and open the car's top emergency access panel.
10. Place an attic ladder into the car and send rescuer into car.
11. Place car occupant into a harness with safety rope belayed from elevator lobby.
12. Assist occupant through emergency access panel, into shaft, and up to lobby.
13. Secure elevator access and return everything to original condition.
14. Leave the power off in EMR until it's restored by the elevator technician and post "out of order" signs in the elevator lobbies.

FLUE FIRES

KEY CONSIDERATIONS:

- Move insulation and stored items in the attic away and check for extension.
- If steep pitch roof consider another company, especially in the winter.
- Use water sparingly to reduce damage and to avoid rapid cooling of the chimney liner. Consider applying wet newspaper or paper towels inside the stove box.
- Fire outside the flue is a Structure Fire – upgrade the alarm.

PROTOCOL:

1. Provide an Arrival Report.
2. Identify the type of chimney (metal, masonry, exterior or interior, lined, capped)
3. Check for signs of extension and attic involvement.
    - Use of the thermal imager is highly beneficial
4. Broadcast a Follow-Up Radio Report if the fire has extended beyond the stove or chimney.
5. Control air intake to the fire box if possible.
6. Place floor runners whenever possible.
7. Put the fire out using lowest risk operation first.
    - **Low Risk**
        a) Close all vents on the stove, ensure the flue damper is open.
        b) Place a wet newspaper or paper towels in the stove and shut the door tightly.
        c) Apply a small amount of water (<1 gallon) into the fire box and immediately close the door.
        d) Repeat until steam is visible from the chimney.
    - **Higher Risk**
        a) Utilize the water can from the top side.
        b) Apply low-flow chimney nozzle, only apply water until steam is no longer converted.

OVERHAUL CONSIDERATIONS:

- Use your TIC, recheck the surrounding flu box and attic, look down the chimney, remove smoke, check smoke alarms, and educate the homeowner.
- If the contents are removed ensure they are fully extinguished.

Document in your RMS the status of the stove and flue at the time of your departure. (Was it out of service, requiring inspections, etc.)

FOAM

KEY CONSIDERATIONS:

- Foam can mask or hide victims, hot spots, obstacles and hazards.
- It is our responsibility to be prudent with our foam use. Protect the environment by minimizing or containing any runoff.
- Dry chemical fire extinguisher with hose line backup can be very effective on class-B fires.
- Foam has little effect on alcohol-based solvents.

PROTOCOL:

1. **Strongly consider not using foam to overhaul until the duty investigator authorizes or until you are ABSOLUTELY CERTAIN that the ORIGIN IS NOT INCENDIARY.**

General Class 'A' Foam Application Rates			
Interior Fire Control	**Overhaul**	**Wildland**	**Exposure Pre-treatment**
0.2% Use fog nozzle	0.1% to 0.3% Not more than 0.5%	Direct = 0.3% to 0.5% *Blizzard Wizard use 'C'*	0.7% to 1% Not more than 1% Use Fog Nozzle
When used on Class 'B' fire use 1% max concentration. • Frequently reapply • Use fog nozzle			

- Class 'A' Foam may also be used in a limited role on Class 'B' fires. The action of a Class 'A' foam is similar in its "blanketing" properties but will degrade more quickly than true Class 'B' foam and will not hold the flammable vapors in check for more than a few minutes.
- In the event of a major Class 'B' Fire obtain a large quantity of foam ASAP.
- **Contact ECSO and request foam from RVIA Fire Department. (see below)**
- Class 'A' foam is ***NOT*** to be added to tanks (including fire apparatus booster tanks), standpipes or sprinkler systems unless ordered by a chief officer. This will prevent contamination of potable water systems and prevent corrosion.
- **Once foam is requested the pumping Engineer will evaluate runoff and protect storm drains and waterways whenever possible.**

Rogue Valley International Airport Fire Department
Foam Info and Considerations

- **No Foam Trailer on-site.** Airport may be able to deliver totes if Operations Staff are available 0400-Midnight. Otherwise you will need to account for transport and delivery. ***ORDER EARLY!***
- Crash Truck (7980) carries 400 gallons of AFFF (Class 'B' foam)
- The Station stocks a minimum of 800 gallons of AFFF in either 260 or 330 gallon totes.
- Airport Fire will be dispatched for General Aviation crashes within 1 mile of the airport and 5 miles for commercial crashes.
- RVIA Fire Department will attempt to provide Mutual Aid when requested. Decisions will be based on staffing and adequately maintaining FAA requirements.

FORCE ENTRY

KEY CONSIDERATIONS: Non-Emergency	KEY CONSIDERATIONS: Emergency
• Try the simplest/cheapest alternatives first • Check for a Knox Box • REQUIRED NOTIFICATIONS – create a paper trail • Consider Law Enforcement for lock picking	• Check for a Knox Box • PPE varies depending on the situation • All D3 engines/trucks have a rotary saw. MFR has them on the Truck and HR. • MFR Heavy Rescue has extra equipment – Hydraforce (rabbit), Holmatro battery Combi-tool.

PROTOCOL:

- Minimum PPE when forcing is GLOVES and EYE PROTECTION, but often more will be required.

NON-EMERGENCY LOCKOUTS:

- Non-emergency lockouts are **not** the responsibility of emergency personnel.

STANDARDS FOR ALL CIRCUMSTANCES:

1. Choose the least damaging method and entry point to gain access. Try alternatives first. Is there a Knox box?
2. Notify law enforcement.
3. Identify yourself clearly during the process of entering premises by announcing **"fire department."**
4. If possible, turn over premises only to an authorized RP or law enforcement personnel. When a Responsible Party (RP) or police are not available, attempt to secure the premises and ensure that prompt notification has been made to the property owner.
5. Notify the Battalion Chief ASAP. Document specifics in your RMS.

Situation	When we WILL force:	PROTOCOL:
Structure Fires	• Working Structure Fire	• Try before you pry. • Choose proper door based on fire conditions. • Have multiple plans. • Control & search behind door. • Be aware of environment entering into- backdraft, flashover, change in vent profile. • When using rotary saw know where spark shower is directed.

FORCE ENTRY

Situation	When we <u>WILL</u> force:	PROTOCOL:
Locked Vehicles	• Person(s) locked in vehicle that is/are incapable of unlocking the vehicle and is in **<u>immediate danger</u>** due to heat or other medical condition. • Pet(s) locked in a vehicle too hot or cold for survival. • Vehicle locked and running INSIDE an enclosed structure producing a hazardous atmosphere. • Other situation where the locked condition of the vehicle is an obvious threat to the safety of persons or property. EMS	• **Contact tow company ASAP.** • Try simple fixes first if time allows. • Utilize least damaging method. • Discuss options with owner etc. and try to build a plan together. • Make notifications.
EMS and Rescue Calls	• Known / confirmed person down and in immediate need of assistance. • Request from other occupant, facility owner or site manager. • Request from family on scene **<u>or</u>** in direct contact with you. • Request from Law Enforcement	• Try simple options first if time allows. • Utilize least damaging method. • Discuss options with owner etc. and try to build a plan together. • Make notifications and secure building.
Fire Alarm Sounding	• Smoke visible inside the structure. • Water flowing. • Fire visible. • Other signs of emergency inside the structure.	• Knox Box? • Try simple options first if time allows. • Utilize least damaging method. • Discuss options with owner etc. and try to build a plan together. • Make notifications and secure structure.
Wildland Structural Triage	• Only when structure is under imminent threat from advancing fire.	• Try simple options first if time allows. • Utilize least damaging method. • Leave a note. • Make detailed entry on your ICS 214 form. • Let Division/Group Supervisor know.

GAS LEAK / ODOR OF GAS

KEY CONSIDERATIONS:

- We shall NEVER restore any gas service.
- Malfunctioning gas equipment can also produce CO. Be vigilant. See CO protocol.
- **DOT numbers** - CNG = 1971 / LNG = 1972 / LPG = 1975
- Propane is heavier than air. Natural gas is lighter.
- Use your WISER app for safety zones, SCBA, and ignition windows.
- We DO NOT clamp gas lines.
- **ALWAYS re-measure with your meters after the problem is mitigated prior to your departure. Document findings in your RMS.**

PROTOCOL:

1. Minimum PPE is structural turnouts. If a leak is inside an enclosed structure or gas is gathering inside an enclosed structure a SCBA is required. **An enclosed structure with a gas leak is an IDLH.**
2. Respond Code 3. Company officers are authorized to DOWNGRADE to Code 1 if additional information is available, such as:
   a. Odor is no longer present.
   b. Non-specific report i.e. general smell in a neighborhood.
   c. Leak is confirmed to be controlled (stopped).
3. Request the appropriate utility/gas service provider to respond.
4. Approach cautiously. Park upwind. Provide arrival report and establish command. **Unify IC with gas-reps if needed.**
5. Control access and ignition sources.
6. Entry into structures should be reserved to conduct a primary search when occupancy is unknown and should be quick and with the least exposure as possible.
   - **Entry is prohibited, except for rescue, when the LEL measurement is 20% or greater until exterior ventilation is achieved. Control of ignition sources is required prior to ventilation.**

WATER APPLICATION CONSIDERTIONS DURING OUTDOOR LEAKS: (avoid flooding the excavation)

- Fog stream application may be useful when:
  - Applied to vector vapor away from an ignition hazard area inside an excavation.
  - Applied to dampen the soil inside an excavation to reduce static generated by blowing gas from polyethylene or even steel gas line. Damp soil also reduces static potential.
  - When protecting exposures from ignited leaks. **DO NOT EXTINGUISH IGNITED LEAKS.**

GAS LEAK / ODOR OF GAS

INDUSTRIAL GAS SERVICE CONSIDERATIONS:

- Industrial gas service is often far more gridded and controllable than domestic service.
  - Shutting off the supply at the master meter may have severe financial implications for a business. Avoid if possible and isolate as close to the leak as you can.
- Whenever practical incorporate the business facility rep into your plan ASAP.
- Industrial service master shut-offs are usually above ground, near the meter and well-marked.

DOMESTIC GAS SERVICE CONSIDERATIONS:

- We will shut off the meter (1st choice) or Curb-Cock (2nd choice) when controlling utilities at a dwelling fire.
  - Domestic Curb-Cocks are usually 1 foot outside the property line and in-line with the meter.
- Meter shut-off is an option if a gas appliance isolation valve is leaking or unavailable.

PROPANE FILLING SITES CONSIDERATIONS.

- Look for a remote shut-down button. **Not always present.** *Different from gasoline pump master shut-off button at service stations.*
- A master shut-off valve (1/4 turn) is usually under the tank on the main liquid line to the filling cage.
- The filling cage is likely interlocked to a main liquid valve. **Closing the cage shuts off the gas supply assuming it is undamaged.**
- Remember to shut off the second **vapor** valve on the top of the supply tank.
- Use your TIC to measure tank level. Also use 4-gas monitor to assess nearby low areas for vapor collection.

HAND SIGNALS

KEY CONSIDERATIONS:

- Hand signals are designed to be used when radio communications are impractical or impossible. They are flexible and can be used across all incident types.
- See TRT Plan for additional hand-signals.

PROTOCOL:

1. **I need help / Assistance. (One hand waving overhead)**

2. **Are you ok? / I'm Ok / Ok, I Copy / Do you copy? (Both a question and an answer)**

3. **Charge the line (Elbow bent; closed fist in a circular motion)**

4. **Shut the line down. (Stand over the line you want shut down; swing your arms back and forth below your waist)**


5. **Someone else has a radio issue. Their radio is not on, on the wrong channel, open mic etc. (Raise your mic or actual radio and make an obvious pointing motion)**

6. **Cancel/Disregard. (Arms crossed overhead)**

7. **Raise pressure 10 psi. (Arm outstretched palm up, each raise of the arm is 10 psi increase)**


8. **Reduce pressure 10 psi. (Arm outstretched palm down, each lower of the arm is 10 psi decrease)**


9. **Cease operation(s) (Arms overhead, elbows bent closed fists)**

10. **Raise the aerial. (Elbow bent, single finger pointed up and spinning)**

11. **Lower the aerial. (Elbow bent, single finger pointing down and spinning)**

12. **Rotate the aerial. (Arm extended in the direction you want the operator to move the ladder)**

13. **Extend the aerial ladder. (Closed fists with thumbs extended, hands move from the center apart repeatedly, thumbs pointing OUT)**


14. **Retract the aerial ladder. (Closed fists with thumbs extended, hands move from the outside and in repeatedly, thumbs pointing IN)**


HAZMAT RESPONSE

KEY CONSIDERATIONS: HAZMAT PLAN ALSO AVAILABLE

- Approach and park upwind, upgrade, upstream, or at a right angle to the wind whenever possible. Use remote size-up means whenever possible.
- Isolate and Deny Entry.
- Some HAZMAT incidents will not be dispatched as such; be ready to alter the operations and plan of an incident and pull back.
- Remember to notify OERS when required.
- Utilize your DOT ERG; **Guide 111** is your Go-To when all else fails.

PROTOCOL:

1. Stage away whenever possible. Provide arrival report and assume Command.
2. Begin sizing up the scene (only proceeding as far as your training and equipment will allow).
    - Identify involved materials
        - Placards / Container marking / Driver - operator provided information (shipping papers etc.)
    - Current situation
    - Leak /Release status
    - Injuries
3. Isolate the area and deny entry. Initial distance recommendations:

Single drum, not leaking	**minimum 150' in all directions.**
Single drum, leaking	**minimum 500' in all directions.**
Tank Car or Truck with BLEVE potential	**½ mile in all directions.**

4. Communicate isolation distances to incoming units; **especially if it will limit or alter their access to the scene.**
5. Treat all vapor clouds as toxic and handle accordingly.
    - Utilize your 4-gas monitor.
    - Begin weather observations.
6. Contact the HAZMAT duty officer through ECSO.
7. Confirm evacuation of the public is occurring and notify ECSO when complete.
8. Begin to develop a control plan.
9. Assign a safety officer (ideally a member of the HAZMAT team)
10. Coordinate with partner agencies – consider a Unified Command.
    - Mercy, Law, Hospitals, ECSO, Public Works, and Private HAZMAT contractors.
11. Begin to order resources necessary to support the HAZMAT team.
12. First arriving HAZMAT team member consult with IC ASAP.

HIGH RISE RESPONSE

KEY CONSIDERATIONS: HIGH RISE PLAN ALSO AVAILABLE

- 4 stories or more is a High-Rise.
- Get the High-Rise Packet from **Battalion 2** ASAP upon arrival.
- A stubborn working high-rise fire will likely require all the available fire resources in Jackson and Josephine County.
- **ANY** indication of a working fire should prompt early additional alarms and notifications.

PROTOCOL:

FIRST ALARM ASSIGNMENT – (Four Companies, BC)

The first alarm resources must provide a prompt investigation of the reported fire, insure the safety of building occupants, and begin initial fire control efforts. The default assignments for the first alarm resources are ***COMMAND, FIRE CONTROL, VENTILATION, and LOBBY.*** *Command must be flexible with this plan, focusing on meeting the incident priorities and solving the highest priority problem(s) first.*

Incident Command – 1 Battalion Chief

- Connect with facility personnel and establish an Incident Action Plan.
- Determine if your Command Post will be with your command vehicle or inside the building.
- Watch your span of control; consider assignments of Divisions, Groups, Operations, and Logistics early in the incident.
- Prepare to bump into Operations on arrival of another Chief Officer.

Fire Control – 2 Companies

- The entire first crew goes to the fire floor, the Company Officer sizes up the fire floor and the floor above and below the fire floor. Hook up to the standpipe one floor below the fire.
- The second company pumps the standpipe, remainder of the crew reports to the first Company Officer that was assigned to interior fire control inside of the building.
- Both companies take a bundle, irons, flashlight, and thermal imager to the fire floor to initiate fire control. Travel light; let future crews bring your additional equipment and bottles.

Ventilation – 1 Company

- Make the stairwells safe through pressurization; inspect the stairwells from top to bottom to be sure they provide a survivable environment. ***THIS MAY BE THE MOST CRITICAL LIFE SAFETY ACTIVITY AT THIS FIRE.***
- Post personnel to control the doors, label those you can't monitor. Doors will be compromised if you do not maintain some type of control.
- Remove smoke from the affected floors after the problems in the stairwells are solved.
- Determine how the HVAC system is working. Request LOBBY to shut it down if you have any indication of a problem.

Lobby Control – 1 Company

- Lobby is responsible for controlling vertical access of personnel to known safe routes; operating the elevators; controlling the air handling system; acquiring building keys and coordinating with the building engineers.
- Lobby will be most effective in buildings with fire control features; those buildings without systems may not need an entire crew to accomplish the tasks.
- **Lobby Control reports to Logistics Section Chief;** operates on the Logistic tactical frequency and monitors the Operational tactical frequency.

ADDITIONAL ASSIGNMENT CONSIDERATIONS

STAGING

- The staging area should have reserve personnel, supplies and equipment, rehab personnel, and a medical treatment station.
- **Reports to the Operations Section Chief.**
- Staging can track the crews and help coordinate the utilization of resources.
- **Staging is located one or two floors below the fire floor.** Staging of equipment and supplies may initially be established in the lobby until sufficient personnel are available for stairwell support.
- Operates on the Operations tactical frequency and monitors the Logistical tactical frequency.

RAPID INTERVENTION TEAM(S)

- Set up one floor below the fire near the stairwell used by fire control.
- If more than one stairwell is being used by fire control then more than one RIT may be needed. The RIT should coordinate any pre-deployment activities with the Operations Section Chief or the IC if OPS isn't staffed.

SEARCH

- Search crews should first contact Lobby if possible – Gather keys and occupant information prior to initiating search.

STAIRWELL SUPPORT

- Stairwell is responsible for the transport of supplies and equipment to the staging area.
- Consider using non-Fire personnel to work in the clean stairwell.
- **The Stairwell Officer reports to the Logistics Section Chief**; works closely with Base, Lobby and Staging; operates on the Logistic tactical frequency and monitors the Operational tactical frequency.

BASE

- Base is a marshalling area for apparatus and equipment.
- The equipment is delivered to the lobby area for stairwell support to move up to staging. One person can be assigned the Base Officer and instruct companies arriving on scene what to bring into the building.
- **The Base Officer reports to the Logistics Section Chief**; works closely with Stairwell, Lobby and Staging; operates on the Logistic tactical frequency and monitors the Operational tactical frequency.

OPERATIONS SECTION CHIEF

- Operations Section Chief should operate in the vicinity of the fire floor.
- Consider setting up an Operations Post in the Staging area to assist in the management of resources. Operating in the stairwell may provide the Operations Section Chief with the ability to easily coordinate the Divisions and Groups and to provide quality information for the Incident Commander.
- **The on duty BC will normally be in the best position to bump into Operations once a Staff Chief arrives to assume Command.**

HIGHWAY / INTERSTATE RESPONSE

KEY CONSIDERATIONS:

- Potentially the most dangerous thing we do.
- Advance Warning, Transition, Blocking, and Work Zones need to be big enough. Call for the necessary resources. Check the chart for distance.
- Never turn your back to traffic and expect the unexpected.
- See communication plan below.
- Call ODOT quick response through ESCO, they can offer you a lot.

PROTOCOL:

1. **When operating on any roadway, members shall wear supplied reflective vests at all times (even while wearing turnouts).** The exception is during firefighting operations; after extinguishment put on your vest.
2. When **two companies** are responding to an incident on Interstate 5 or the HWY 62 Bypass, the company travelling the opposite direction of the vehicles involved shall stage at the closest interchange until called in by the BC or first due engine.
    - Exception: If the crew responding from the opposite direction expects to still be first due; then commit.
3. The default is to NOT stop and cross the median on foot to access an incident. However if the officer deems there to be a life threatening emergency in which an appreciable difference can be made they can deviate. In this case the apparatus should remain in a position of tactical advantage while the crew crosses. Then the apparatus should maneuver to the scene and create a standard block.
4. The default is to NOT drive through the median to access a scene. However, as above, that option exists when absolutely necessary. When crossing, companies should take care to not:
    - Scrape the apparatus on road transitions.
    - Start a fire in the grass.
    - Become stuck in soft ground.
    - Impede traffic flow.
    - Surprise drivers in either direction (slow early).
5. Turnoff all sources of vision impairment to approaching vehicles at nighttime incidents. Take care to angle spotlights and light towers away from the line-of-site of approaching motorists and use your traffic advisor.
6. Establish adequate blocking, advance warning, and transition areas. Consider an additional "upstream block". Place cones, flares or cones illuminated by flares when appropriate. Consider placing a crew member upstream to monitor traffic and warn others with an emergency signal if an event is about to occur.
7. All vehicle on scene shall park on the same side of the road and park as many OFF the road as possible. Avoid emergency lighting overload.

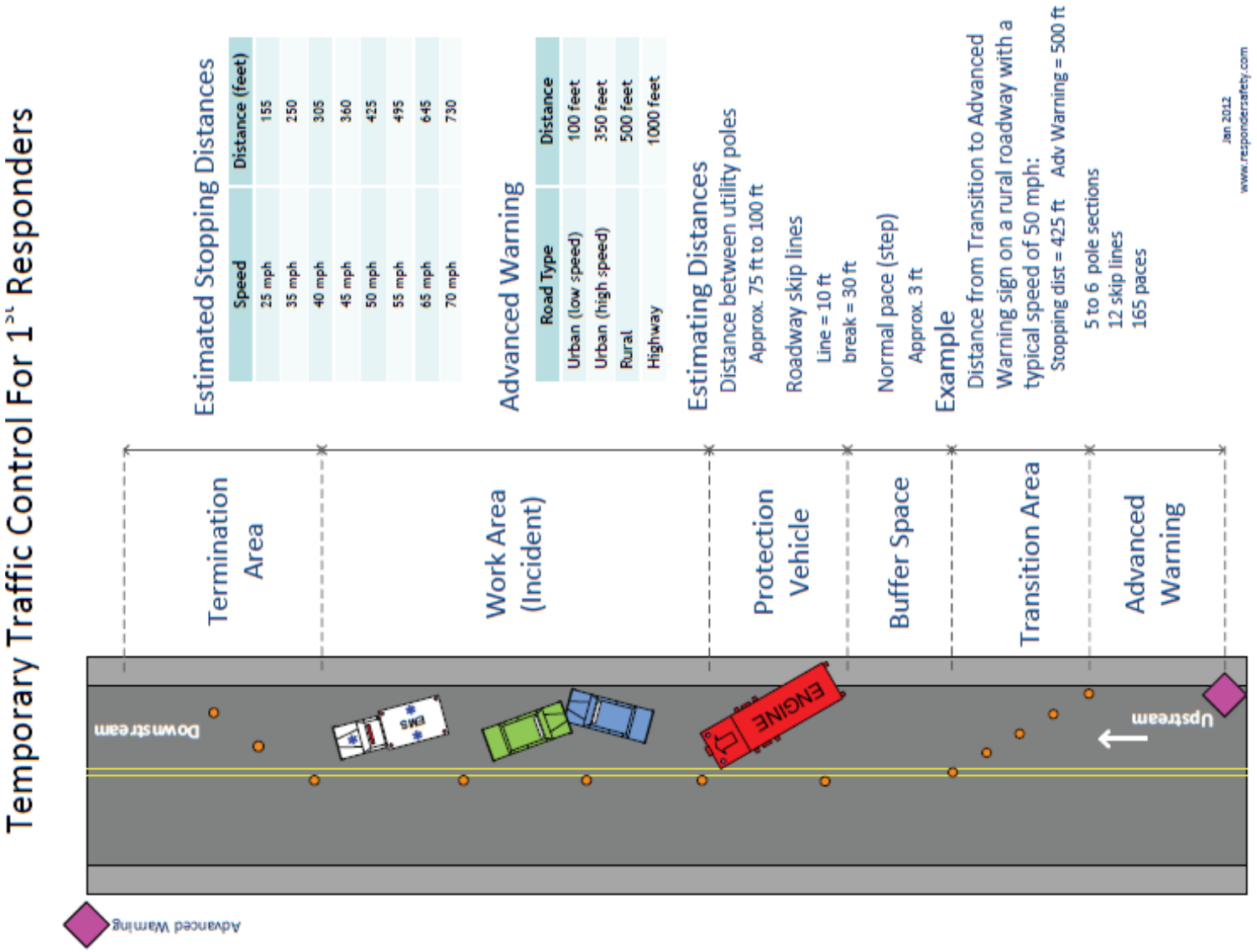
HIGHWAY / INTERSTATE RESPONSE

Communications Plan (whether the incident is dispatched as NB or SB is irrelevant):

MILE POST	*RADIO FREQUENCY*
I-5 South of MP 24	South County Fire
I-5 MP 24 - MP 33	Medford Primary
I-5 NORTH of MP 33	North County Fire
RV Expressway	Medford Primary

Operate on the channel where the incident was INITIALLY reported and stay on that channel even if the incident turns out to be elsewhere.

Example: MVC reported at MP 32 Northbound, crews start on MFR Primary. Incident is found to be at 35 NB. Crews shall stay on MFR Primary.



INCIDENT COMMUNICATIONS

KEY CONSIDERATIONS:

- Our goal is to reduce unnecessary radio traffic.
- Individual style and methods can be valuable but this protocol is the basic framework of good incident communications.

SCENE COMMUNICATIONS:

1. Individual unit numbers are the preferred communication method:
    - Task level designators may be used for the primary fire ground functions: i.e. Attack, Salvage, Search, and Ventilation.
    - Officer is managing a **group** – Use functional designator assigned by the Incident Commander (fire attack, salvage, ventilation, etc.)
    - An officer is assigned to manage a **division** – Use area designator assigned by the Incident Commander (Div. 2, Delta Div.)
        i. **Group definition:**
            1. A group is established to divide the incident into functional areas of operation. Groups are composed of resources assembled to perform a special function not necessarily within a single geographic division.
            2. Application: when multiple companies are working **in the same area working on the same assignment**, assign a leader and functional designator.
        ii. **Division definition:**
            1. A Division is used to divide an incident into geographical area(s) of operation. Divisions are established when the number of resources exceeds the span-of-control of the Incident Commander.
            2. Application: to manage span-of-control, **establish geographic area(s) where companies are working together doing different tasks** to accomplish objectives assigned by the Incident Commander (Division Supervisor will pick the tactics). Assign a leader and geographic / area designator (Division 2, Delta Division).
2. All crews should maintain awareness of the other companies working in their area and their assignments. Ensure appropriate coordination is occurring and **report when you recognize confusion.**
3. **"2 Call Rule":**
    - **If any radio call goes unanswered twice**, the caller will ask for anyone on the fire ground with knowledge of the location of the person being called. Additionally, anyone who has eyes on the crew or person, or knows their whereabouts, is obligated, whenever possible, to:
        - Advise the caller that you see or know of the location of the person being called and their status.
        - Physically contact the person being called and inform them of the call.

INCIDENT COMMUNICATIONS

TERMINOLOGY:

- **ABANDON:** used when an ***immediate*** withdrawal of personnel to a safe area is necessary. The person calling for the signal must define the area to be abandoned. ***Personnel will drop their tools and abandon the area***.
- **WITHDRAW:** used when an orderly withdrawal of Firefighters can be completed, no imminent threat. Personnel will gather up their tools and withdraw from the area.
- **EMERGENCY TRAFFIC:** used by the Incident Commander to gain control of the radio traffic for specific circumstances such as but not limited to a change in strategy (offensive to defensive); declare and identify an imminent hazard due to structural stability; or other sudden changes to circumstances deemed worthy by the IC. Once declared the IC controls all radio traffic on the incident and crews will maintain radio discipline/silence until the Emergency Traffic is cleared by the IC **(***NOTE: this change to Emergency Traffic conflicts with the RVFCA Model Operating Guideline #3.04*****). **PRIORITY TRAFFIC:** When a company encounters a situation/condition that was not expected or they feel command needs to be aware of the information right away. This is considered "Red Flag" information (usually bad news) and may require adjustments to the current IAP or Strategy. This includes but is not limited to:
    - 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 fire in concealed spaces not easily controlled by the locating unit
    - A roof report that includes a working attic fire, unsafe roof structure/members, or an imminent collapse threat
    - Sudden, significant incident events such as flashover, backdraft, or collapse
- **ROOF REPORTS:** Ladder or engine companies assigned to the roof should provide a roof report to command soon after making access. This should include but not be limited to:
    - Type of roof (peaked, flat, etc.)
    - Condition of the roof (stable or unstable)
    - Fire or smoke conditions (location)
    - Location of any firewalls
    - Heavy roof loads (if present)
    - Conditions in the attic (if known)
    - Basic blueprint of the building if it is unusual
- **C.A.N. REPORTS:** These reports are initiated by Command or Division Supervisors to companies and are considered progress reports. They should state the current Conditions, Actions, and Needs.

TERMINOLOGY CONTINUED…

- **EVACUATE:** This term is used to describe the task of removing civilians from an area. Not used to withdraw FF's.
- **RECYCLE:** A timely and efficient means of air replacement and re-hydration of assigned companies while still maintaining their Division assignment.
- **REHAB:** An assignment to a formal rehab location (close to the emergency scene and post gross-decontamination) where companies will be medically evaluated, rehydrated, and receive nutritional replenishment.
- **STATUS CHANGE:** Companies who are changing their work location, have completed their work assignment, or need to Recycle/Rehab. This must be transmitted to their supervisor prior to making the change and requires an accountability adjustment by the Division Supervisor or Incident Commander.
- **TASK LOCATION OBJECTIVE (TLO):** When assigning units, the Incident Commander must identify the Task, Location, and Objective(s). The assignment has to state what the task is (stretch/advance attack lines), the location (to the front door on the Alpha side), and the objective(s) (for fire control, search, check for extension, etc.).
- **CODE 13:** Used when a Firefighter's life is in imminent danger from a hostile person (i.e.: taken hostage), when clear text or attempt to abandon the area is not an option. Code 13 is a non-questioned request for immediate response from the closest available law enforcement unit/agency. **(Applicable in all aspects of a firefighter's duty)**

AUDIBLE ON-SCENE COMMUNICATIONS:

- Once an ABANDON notification has been broadcast:
  - All apparatus operators near the hazard zone will activate their air horn with **one long continuous blast lasting for approximately ten (10) seconds.**
  - Portable air horns should be used in areas that may not be heard by the engines air horn.
- Members needing to broadcast Emergency Traffic, MAYDAY traffic, or who need to gain control of the channel are authorized to generate alert tones with their portable radio prior to delivering the message. *SEE Radio Performance Guideline.*
- IC can request Alert tones from ECSO to assist in critical message delivery. Examples of when this may be beneficial:
  - MAYDAY
  - Change in fireground strategy
  - To parrot emergency traffic
  - To parrot urgent incident information
  - To gain control of the channel

INCIDENT COMMUNICATIONS

COMMUNICATION PROTOCOLS:

WHAT: (example situation)	RADIO DESIGNATOR(S)	WHO ANSWERS
Responding Company	Unit number (7701)	Officer
On-scene assigned a task (example: salvage or search)	Salvage & Search 7702-Salvage & 8102-Search.	Officer
8104 and 7701 both assigned to fire control	8104	8104 officer
Engineer working at the pump	7701 Pump –OR- 7701-Clark (if known)	Engineer Clark
8103 splits to do 2 jobs (often truck functions like venting and searching)	8103- Last Name of Officer 8103- Last Name of Leader	Officer Leader
BC 3 assigned to take "Charlie" Division	Charlie Division	BC3
8106 is assigned Division 3. 8103 is doing a search on the 3rd floor. 8102 is doing salvage on floor 3.	Division 3 8103 8102	8106 officer 8103 officer 8102 officer
FF wants to talk to his crew – OR - IC is calling an individual FF	8106 from Stidham Stidham from command	8106 Officer FF Stidham
Aerial Specific - 8121 / 7722	8121 Pump 8121 Pedestal / Turntable	Member at the pump Member at the pedestal

INCIDENT REHAB

KEY CONSIDERATIONS:

- Individuals are responsible for their needs at all times. Prepare your body **before** the fire and carry your own initial rehab supplies.
- Mandatory Notifications – Related to FF transport.
- Crews shall not be allowed back into service until the crew and equipment is fully rehabbed and decontaminated.

STANDARD:

- Applies anytime crews are undertaking strenuous physical activity either on emergency scenes or in training.
- Any activity that is large in size, long in duration, or labor intensive that will rapidly deplete energy or strength.
- Level 1 Rehab: Managed at crew level, officer manages measurement, rest, fluid, and nutrition replacement.
- Level 2 Rehab: Rehab group set-up. Managed by rehab officer. When to set-up:
  - Working "2-Bottle" fires
  - Extended TRT events
  - HazMat w/ encapsulating suit use
  - Extended Wildland events
  - Any event with 1 hour of exposure **above 90° F** heat index or wind chill index **below 10°F**.
  - Training Burns
  - As required by the IC
- The rehab Group Supervisor will be designated by the IC. ALS is preferred for those providing care in the rehab group.

PROTOCOL:

Site Selection: (consider divisional rehab on large scale events, in this case crews will still eventually require medical monitoring.)

- Sufficient distance from the incident to allow for the removal of PPE and SCBA and allow for mental rest related to pressure and stress from the incident.
- Easy access for EMS medic units.
- Away from vehicle exhaust.
- Provide suitable environmental protections such as warm areas when it is cold and cool/shady areas when it is hot outside.
- Large enough for expected attendance.
- Allow for prompt re-entry in to the emergency scene.

INCIDENT REHAB

When in Rehab: (IC will assign crews and track to ensure proper accountability on the scene)

- Add / remove clothing to regain normal body temperature.
- **Rest – minimum of 20 minutes.**
- Eat and Drink as necessary.
    - Hydrate with water or sports drink. **2-4oz, every 20 minutes.** (avoid caffeine, carbonated beverages)
    - Energy bars that contain 40/30/30 (carbs, protein, fat) and fresh fruit is the goal.
        - Zone Perfect, Cliff and Powerbars, bananas, apples, kumquats etc.

Medical Evaluation and Treatment:

- Once on Rehab, members will be evaluated for:
    - Heart Rate
    - SPO2
    - COHb
    - Mental Status
        - Consider: BP and Core temperature.
- The FF will be transferred to the EMS system, and the IC notified, if any findings indicate a potential problem. **Mandatory transfer for:**
    - Chest Pain
    - SOB
    - Altered Mental Status
    - Irregular Pulse
    - Injury
- Reevaluate after 20 minutes.
- **Begin ACTIVE COOLING if body temp is 101 or greater.**

Return to staging from Rehab:

- **Heart Rate >60 AND <100**
- **Normal Mental Status**
- **SPO2 >95%**
- **COHb <16%**
- **Systolic BP >100 and <160 / Diastolic BP >60 and <100.**
- **Temperature <100°F**

INCIDENT SAFETY OFFICER

KEY CONSIDERATIONS:

- Roles may vary based on the incident type. Be aware of changing conditions and maintain situational awareness at all times – look for the unexpected!

ISO'S ROLE	**STRUCTURE FIRE**	**SPECIAL OPERATIONS**
❑ Obtain a Briefing (IAP)	❑ Rescue & Life Safety	❑ Water Rescue
❑ Walk Around (360)	❑ Building Construction	❑ Trench Rescue
❑ Develop a Safety Plan	❑ SCBA's and PPE	❑ High-Angle Rescue
❑ Make Recommendations	❑ Smoke & Fire Conditions	❑ Aircraft Crash / Fire / Rescue
❑ Monitor Radio	❑ Burn Time (20 minutes)	❑ Wildland Fires
	❑ Fire Involvement / Flame Spread	❑ Natural Gas Leak
EMS RESPONSE	❑ Evacuation & Refuge Area	❑ Elevator Emergencies
❑ Infection Control	❑ Utilities Secured	❑ Confined Space Entry
❑ Scene Security	❑ Offensive / Defensive	❑ Building Collapse
❑ Personal Protective Equipment	❑ Size of Hose lines	❑ High Rise Building Fires
❑ Hazard Assessment	❑ Fire Protection Systems	❑ Technical Experts
❑ Air Ambulance	❑ Extension / Ventilation	
❑ Ambulances	❑ Scene Security	**MISCELLANEOUS**
❑ More Personnel	❑ Rapid Intervention (RIC)	❑ ICS Established
❑ Risk Evaluation	❑ Medical	❑ Command Post
❑ Violent Acts	❑ Building Collapse	❑ Staging Area
❑ Multi-Casualty	❑ Access & Egress	❑ Additional Resources
❑ Communicable Diseases	❑ Fatigue	❑ Special Equipment
❑ CISM	❑ Police Involvement	❑ Rehab Established
	❑ Prolonged Incidents	❑ Ped / Infants
HAZ MAT OPS		❑ Establish Priorities
❑ Safety Officer Assigned		❑ Scene Security
❑ Ambulance / Paramedics		❑ Accountability System
❑ Site Safety Plan Developed (OSHA Requirements)		❑ Divisions Needed
❑ Zones Established		❑ Primary & Secondary Search

INCIDENT UTILITIES

KEY CONSIDERATIONS:

- IC will "Benchmark" over the Operational channel **AND** Dispatch channel when utilities have been secured.
- When a utility is involved consider a representative from the appropriate purveyor.
- Always consider water-hammer when opening and closing water meters.
- If the structure is not habitable or a utility is compromised the IC shall request the responsible agency to secure the utility.

PROTOCOL:

Fire Personnel Shall:

- Never remove meters from structures.
- Exercise great caution when restoring utilities.

INSIDE UTILITIES

Electrical:

- Shut off the electrical feed to the house circuits by throwing the main breaker switch on the panel to "off".
- To preserve evidence, individual branch circuit breakers should not be turned off. In the absence of a main/master breaker switch, individual breakers can be shut off.
    - Pay careful attention and note any circuits that have been tripped. Take a picture if you have time.
- Some remote structures (sheds, pool houses, shops etc.) may have a sub-panel that resembles a main electrical panel.
    - When a sub panel is present the main panel shall be found and secured also.

Water:

- Affected water lines within the structure that have valves can be shut off.
- To alleviate damage to water heaters shut off the power supply to those units.

Gas:

- All gas appliances within a structure should have control valves nearby. Shut them down when possible.

INCIDENT UTILITIES

OUTSIDE UTILITIES

Electrical:

- Power company representatives shall be the only personnel to remove the meter.
- The "throwing" of remote breakers and/or fuses can be done after confirmation with Incident Command.
- Only appliances or units affected shall be shut off using the applicable "enclosed" disconnect switch. **Bunker gear, gloves, and eye protection shall be used anytime a remote breaker and/or fuse is "thrown" to off**.

Water:

- Outside water supplies shall be shut off only when directed by Incident Command.
- Fire Suppression systems shall only be shut off by **confirmed** directive of the Incident Commander.
- Potable water supply valves on the structure side of the meter may be shut off by fire personnel when directed.

Natural Gas:

- Close the quarter turn valve on the supply side of the meter.
- Once the gas is shut off to the structure it should only be turned on by the utility company.

Propane (LPG):

- Close the valve at the supply tank to secure the propane service.
- If multiple tanks are "piggybacked" together shut all of them down.
- Propane is heavier than air and can pool in low areas.

JACKSON COUNTY JAIL RESPONSE

KEY CONSIDERATIONS:

- Primary strategy is the safety of firefighters – be extra vigilant.
- Remember door chocks around locking doors/cells.
- Jail has a standpipe available in the NW and SW stairwells; the FDC is near the sally port.
- Smoke inhalation may be the primary cause of concern.
- Leave potential weapons in your rig if possible / reasonable.
- During a more complex incident assign a **fire officer** to the **control room** to liaison with jail supervisors.

Special Note: It is recognized that during a fire some inmates in the IDLH may not be secured. It is further recognized that some inmates evacuating the IDLH may have limited security. Jail Officers and Fire Officers shall do everything reasonable to ensure their own safety during an emergency.

PROTOCOL:

Staff at the Jackson County Jail are trained to provide basic life support in the event of a medical emergency and fire extinguisher operation. Staff is instructed to activate the 9-1-1 system when needed.

EMS Response:

Respond to the **Sally Port** entrance at **8th / Mistletoe.** Gate should be open but if not ring the bell. **PARK ADJACENT TO THE ENCLOSED SALLY PORT- NOT INSIDE.**

Fire Response:

1. Respond to the Sally Port entrance unless directed otherwise by the dispatch / CAD notes.
2. Standpipes are available in the NW and SW stairwells. FDC is just south of the Sally Port on the outside wall.
3. The **NW stairwell is the default fire control stairwell**, jail staff will be **evacuating inmates via the SE stairwell** to the juvenile justice facility via an underground tunnel under 10th street.
4. Jail has a smoke removal HVAC system that is available that services most of the facility. **Controls are in the kitchen.**

ON SCENE:

- Upon arrival make contact with corrections staff. Someone should meet you at the Sally Port. Confirm Security Protocols are in effect and the "scene is safe."
    - Fire company officers are responsible for ensuring that all fire personnel adhere to special jail precautions whenever entering the facility.
- Obtain corrections deputy escort to take you to the emergency.
- A deputy will accompany fire personnel to the patient or the IDLH boundary. Deputy is to remain with Fire Company at all times or at the IDLH boundary. (If separating from your escort get a jail portable radio for you to use.)

JACKSON COUNTY JAIL RESPONSE

SECURITY PROTOCOLS:

- *Inmates wear orange, green, and black/white striped uniforms.*
- **Upon exiting the jail all equipment will be accounted for including: EMS garbage, tools/equipment, items in pockets and items on your belt, etc. If any items are missing immediately report them to the jail shift supervisor.**
- Inmates are to be secured by the jail staff prior to travel with fire personnel in the facility according to the following guidelines:
    - All non-involved inmates will be secured in a cell, restrained, or removed from area and locked behind a door.
    - Involved inmate(s) will most likely be restrained and at least two deputies will be onsite to assist you. Restraints may be modified (increased / decreased) per your request.
    - If patient is in a group or dorm type cell, consider requesting them be moved into the hallway for more privacy and security.
    - During transport the jail prefers inmates are restrained but a deputy escort in the ambulance is the minimum.
- Inmates at the nurse's station will be accompanied by jail staff.
- During a large scale evacuation staff may be unable to escort all inmates to the tunnel, they intend to handcuff them together in pairs and let them self-direct to the appropriate exit.
- If Security Protocols are **not** maintained, you are authorized to **stop**, advise the escort deputy, and back away from potential inmate hazard until security protocols are confirmed.

LANDING ZONE SETUP

KEY CONSIDERATIONS:

- MERCY 105 will contact you on your operational channel.
- Your MDC may be used to get GPS coordinates; communicate them directly to ECSO.

CONES OR FLARES

LZ SETUP

WIND ↓

- Assign LZ coordinator / ground contact for pilot
- 100’ x 100’ square perimeter is optimal
- Find and report ALL LZ obstacles (trees, wires, poles, buildings etc.)
- Report Wind Direction to pilot (SLOW-MEDIUM-FAST)
- Surface should be firm, clear and level (less than 5% grade) CONSIDER:
  - Watering down area when loose material (sand, bark dust etc.) is present
- AT NIGHT – turn off emergency lighting. NEVER direct a light at the helicopter.
- Should look for a safe approach and departure path clear of wires, poles, antennas, buildings, and trees.
- Keep civilians back 100’ minimum from LZ area.
- Protect everyone from rotor wash.
- EVERYONE stays clear of rotors at all times and never approach until called in by pilot.

- **Tell the pilot where the LZ is in relation to a landmark.**
  - **Use the clock method to do this.**
- **EXAMPLE:**
  - **LZ is at your 3 o’clock. Be aware of a cell tower 500’ ahead at your 11 o’clock.**

LIFE HAZARD ZONES

KEY CONSIDERATIONS:

- Life hazard zones are NOT to be entered by anyone including Emergency Responders.
- Life Hazard Tape is preferred; yellow scene tape can be used as a last resort.
- 3 stripes securely affixed around the area or blocking the path etc.

PROTOCOL:

1. Whenever a life hazard is identified and an immediate threat to the health and safety of incident personnel is present, the person who recognizes the potential life hazard shall immediately contact the Incident Commander (IC) to advise them of the situation.
2. Once notified, the Incident Commander shall ensure that incident personnel are made aware of the life hazard and request the appropriate resource or agency to respond to the incident to evaluate and mitigate the life hazard (i.e., Utility Company, Structural Engineer, etc.)
3. **The critical element in identifying a hazard zone is that the tape shall be configured in three horizontal strands approximately 18 to 24 inches apart and securely fixed to stationary supports to establish the LIFE HAZARD ZONE.**
4. Three horizontal strands of barrier tape shall only by used for life hazard identification. When incident personnel see this configuration of barrier tape, incident personnel shall not enter the **Life Hazard Zone.**
5. When personnel are available, consider posting a Life Safety lookout at critical hazards that present an extreme risk to personnel working on scene. Lookouts can ensure that the Life Safety Zone is observed and personnel remain outside the hazard zone.
6. Personnel shall not breach, alter, or remove any LIFE HAZARD ZONE identification measures until the hazard has been abated and the Incident Commander has granted approval.
7. The LIFE HAZARD ZONE identification tape should NOT be used for non-life hazard situations such as fire origin identification, crowd control, and marking abandoned vehicles.

Remember the slogan: THREE STRIPES, YOU'RE OUT!

LINDE RESPONSE

KEY CONSIDERATIONS:

- Primary strategy is the safety of firefighters – be extra vigilant this is a unique facility.
- Highly trained staff is on-site. We need to quickly **integrate and support** ongoing recue and emergency management actions.
- Some HAZMAT exposure/EMS treatments will be underway already – it is critical for us to account for an appropriate but speedy DECON and get the patient to the correct hospital ASAP. See below for more.
- Isolate spill or leak area for at least 100 meters (330 feet) in all directions. Vapors from liquefied SILANE gas are initially heavier than air and spread along the ground. Vapors may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.). Vapors may travel to a source of ignition and flash back.

PROTOCOL:

Staff at Linde is trained to a high level in HAZMAT. Staff is instructed to activate the 9-1-1 system when needed.

Normal EMS Response (fall, chest pain, general illness, etc.):

1. Respond to the **main entrance.** Treat this just like any other response.
2. If you have any doubt or are unsure about the origins of an emergency initiate the protocols below.

HAZMAT, Fire or Chemical EXPOSURE Type EMS:

1. If not responding already request the closest BC be added to the incident.
2. **The BC will contact the staff at LINDE on RV TAC 1 while enroute. Their radio call sign is LINDE.**
3. **Consider requesting law to respond for possible evacuations and/or traffic control.**
4. Unless otherwise instructed by LINDE, **the first arriving Fire Department OFFICER will report to the command room ASAP**. Inside main front door entrance – through the next door, then first room on your left.
5. **With the exception of the first engine and first BC** all other units **shall stage** a minimum of 500 meters (1,650 feet) from the facility. Begin monitoring environmental conditions in the area and stage upwind during a release emergency. Use alternate response routes when necessary.
6. **The incident will be managed from the onsite command room**. Linde reps, our IC, site maps, CCTV, WIFI, SDS, and other technical resources are available here.
7. When forming groups that include onsite responders ensure they have a capable radio with the right channels.
8. **Some EMS patients SHALL be transported to PROVIDENCE MEDFORD MEDICAL CENTER EMERGENCY DEPARTMENT only**. See the HF Protocols below.
9. Notify the PIO.

Fire Response: (SILANE)

*Linde has flammable gases, flammable liquids, and Pyrophoric Gases on site. Pyrophoric gases **(SILANE)** can spontaneously ignite without an ignition source. On-site Life Safety Systems are designed to shut off gas leaks whenever possible via detection on gas sensors or UVIR detectors. Deluge systems also activate on certain flammable gas sensor detections.*

Linde's Emergency Response Team members are trained to respond to gas releases. They are not trained fire fighters and need to rely on the Fire Department to respond to onsite fires. They will help aid in any response by offering expertise on site lay-out, system operation or requests for data of on-site products or equipment as the IC deems appropriate.

For large fires, use unmanned monitors; if this is impossible withdraw from area and let the fire burn. Account for a likely expanding evacuation zone – quickly get help from law enforcement.

1. Begin cooling cylinder and surrounding cylinders, do not extinguish the fire until supply is shut off.
    - Use non-sparking tools to close container valves.
2. Once valve is closed, continue to cool fire exposed cylinders until flames are extinguished and cylinders are cool. If/when the valve fails we must let the material burn off while managing exposures and preventing BLEVE's.
3. If the fire is extinguished and the flow of gas continues, consult with Linde ERT. Consider using ventilation to prevent build-up of explosive atmosphere; ventilation fans must be explosion proof.
4. Cylinders may rupture under extreme heat. Damaged cylinders should be handled only by specialists.

HF = HYDROGEN FLUORIDE, HYDROFLUORIC ACID, FLUORINE - EXPOSURE PROTOCOLS:

These specific plans are in place to ensure that employees exposed to HF receive prompt and appropriate care and are transported to **PROVIDENCE MEDFORD MEDICAL CENTER EMERGENCY DEPARTMENT (PMMC ED)**.

1. HF exposure can result in significant tissue damage even without obvious injury. An exposed 5" x 5" area of skin can be fatal.
2. Two Hydrogen Fluoride exposure kits are already onsite at LINDE and will likely be in use.
   The LINDE staff will be applying iced Benzalkonum solution (BenzaRid or Zephiran) copiously to any exposure below the face. Calcium Gluconate is used for facial burns or eye exposure. All of this is in the onsite kits.
3. Retrieve the EMS INSTRUCTION CARD FROM THE KIT or from the command room.
4. **The IC SHALL CALL THE PMMC ED DIRECTLY HIMSELF – speak with the EMERGENCY PHYSICIAN ON DUTY.** Notify them of the exposure and remind them that LINDE is an approved decon facility, which means that PMMC will not have to further decon the patient upon arrival.
5. Ensure DECON of the patient is complete or is occurring. **(This is 5 minutes in the decon shower at LINDE and removal of all of the patient's clothes).**
6. Assist with the care of the exposure and other measures outlined on the EMS card.
7. Send a LINDE representative with the patient. **Take the EXTRA HF EXPOSURE KIT WITH YOU FOR EMERGENCY DEPARTMENT USE and** send the HF INSTRUCTION CARD WITH THE PATIENT.
8. If possible videotape the decon process and send with the patient – do not delay care to account for this.

LOCK-OUT / TAG-OUT (LOTO)

KEY CONSIDERATIONS:

- Follow this protocol whenever ZEP (ZERO ENERGY POTENTIAL) is required for you to work safely.
- Equipment must be de-energized using the LOTO procedures and use of blocking, cribbing and other shoring applications before rescue operations. ZEP is the objective.
- Qualified on-site personnel to help in securing energized machinery. DO NOT just take their word for it – have them show you and **ADD** your own LOTO devices.
- It's not locked out until **our** LOTO devices are in place.
- **When a tag is the only** control measure possible **POST A FIREFIGHTER** at the controls.
- DO NOT attempt intervention until the machinery/area is de-energized and LOTO is complete.
- Some equipment may have multiple energy feeds and operating switches. In some cases, a certified electrician may need to be consulted.

PROTOCOL:

1. Assume command of the incident and establish an Incident Safety Officer (ISO) and Assistant Safety Officers (ASO) as appropriate.
2. Request the response of utility companies and identify essential on-site personnel for mechanical and electrical consultation.
3. Establish a perimeter. Exclude all non-essential personnel from the operational area.
4. Before firefighters perform any kind of rescue operations the Incident Commander and the Safety Officer will verify that the machine or equipment is isolated and rendered inoperable.
5. The Incident Safety Officer or an ASO shall be assigned responsibility for the Lock-Out/Tag-Out of energy sources and have exclusive control of LOTO devices once in place.
6. If an energy source is capable of being locked out, then it is required that it be locked out utilizing a padlock device. If energy isolating device is incapable of being locked out, then a Tag-Out shall be utilized in conjunction with a firefighter standing guard.
7. On-site personnel knowledgeable of equipment operation should be consulted and/or utilized for shut down or re-start procedures. Re-starting is only permitted if necessary to facilitate the removal of the victim(s) and should only be done with onsite personnel when such personnel are available.
8. Machines or equipment must be isolated from their energy sources and rendered inoperable to prevent injury or death from unanticipated, uncontrolled hazardous energy. Hazardous energy sources include: electrical, hydraulic, pneumatic, mechanical, thermal, chemical, and gravity.
    a. Do so with caution as some energy isolating/reducing procedures may be dangerous (e.g., bleeding off excess pressure in pressurized systems could result in more injuries and escalate the incident).

   b. This will be accomplished by locking out and tagging out energy isolating devices, and otherwise disabling machines or equipment. Specific steps should be taken by using blocking, cribbing, and other shoring necessary as a safety precaution during rescue operations with machinery or any type of manufacturing equipment.
   c. Be aware of all stored or residual energy. Such as that in capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems, air, gas, steam, or water pressure, etc. All must be dissipated, disconnected, or restrained by methods such as grounding, repositioning, blocking, bleeding down, etc.
   d. Pulling fuses is not a substitute for locking out. A pulled fuse is no guarantee the circuit is dead and needs to be tested by a knowledgeable employee or supervisor.
   e. Be aware of intermittently operating equipment such as pumps, blowers, fans, and compressors that may seem harmless when dormant. Do not assume that because equipment isn't functioning, it will stay that way.
   f. Verify that all controls have been put into a neutral or off position, and have workplace supervisors or employees check systems for proper shut down procedures.
9. Test equipment for inoperability before rescue operations begin. This should be done with extreme caution and by a knowledgeable, qualified worker (if available) under the supervision of the Incident Safety Officer or ASO. For example, using voltmeters for electrical circuits and reading pressure gauges.
10. Keep on-scene personnel informed as to the energized status of the emergency scene. Announce clearly that utilities have been secured and power has been disconnected.
11. Once rescue operations have been completed and all personnel and victims have been removed from the area of danger, energy sources shall remain locked out and transferred to workplace supervisors. (Add a second lock and then remove yours.)

MAYDAY - CALLING

KEY CONSIDERATIONS:
MAYDAY is defined as anytime a firefighter(s) cannot safely exit any IDLH hazard zone- not exclusive to structure fires.

- You may have a very brief opportunity, be decisive and call it.
- Take action to save-yourself!
- Call "CODE 13" if your life is in danger and you are under duress and not able to freely communicate because of a threat.
- DO NOT UNKEY THE MIC AFTER "MAYDAY, MAYDAY, MAYDAY" - Get your CAN report out ASAP!

PROTOCOL:

1. Announce **"MAYDAY, MAYDAY, MAYDAY- CAN",** on the operational channel.
    - While still keying the microphone, give a CAN report that includes:
        - Who-your identity and unit
        - What-caused the condition of the MAYDAY
        - Where-current location, last known location, surroundings
        - Needs-the needs that will help resolve the MAYDAY
2. Command will copy the MAYDAY and CAN report.
3. If command does not respond to you, **you have options:**
    - Re-broadcast on the operational channel.
    - Generate emergency tones on the operational channel followed by your MAYDAY.
    - Switch Frequencies to a dispatch channel and broadcast your MAYDAY again. ECSO will notify command.
    - Use your Firefighter Down Button. The Portable Radio will broadcast a signal via SFM to ECSO. ECSO will notify command
4. Calm down, begin self-rescue, and conserve your air.
5. Activate your PASS if appropriate
6. **Maintain radio contact with the IC or Division supervisor**

Effective July 1, 2018
Revised October 2022

TRIGGER POINTS FOR CALLING A MAYDAY

- Involved in a collapse or fall through a roof or floor and are unable to self-extricate.
- Caught in a flashover or about to be burned over.
- Zero visibility, no contact with hose or rope and you don't know where the exit is.
- Tangled, pin or stuck and you are unable to self-extricate.
- Primary exit is blocked and you are not able to find a secondary exit.
- Low air alarm is sounding and you are unable to find an exit.
- Separated from your crew and unable to find an exit or teammate.
- Significant medical/traumatic event and your condition may worsen by self-rescue.
- You can and should call a MAYDAY for another Firefighter or crew when you witness a significant event, and you are not sure they are OK.
- Follow 8-line protocol for injuries and significant events in the wildland environment.
- Shelter deployment
- Safety zones and escape routes are compromised by fire behavior or erratic weather.

MAYDAY - MANAGEMENT

KEY CONSIDERATIONS:

- A strong Command presence is KEY to maintaining fireground discipline.
- Crews shall maintain operational and radio discipline.
- Remember multiple MAYDAYs may occur.
- After the MAYDAY is complete, conduct a PAR to obtain crew status and integrity.
- Treated as an incident within the incident.

STANDARDS:

1. Command must effectively display their presence, crews must coordinate their change in assignment with their supervisor, and radio discipline will never be more crucial.
   - Assign FF rescue activities to Division Sup if in place. Beginning with help order (Protocol 2 b)
   - If a Division Sup is not in place, consider assigning one to either manage rescue activities or other critical factors on the incident.
2. Units working near the downed firefighter, or a member of the same crew may be in the best position to perform the rescue. **This action shall maintain operational and radio discipline**. Self-Deployment may cause a waste of resources and prolong rescue efforts.
3. Command shall conduct a risk/benefit assessment:
   a. If the Firefighter can be made safe and placed on air, then Rescue crews can extricate the Firefighter in a prudent and timely manner.
   b. If the Firefighter is trapped and not in a safe area Command must make strategic decisions and continue to consider actions that reduces the risk to the greatest number of personnel.
   c. If the Firefighter is not savable no additional personnel shall be risked.

PROTOCOL:

1. MAYDAY is called.
2. Command will respond to the MAYDAY:
   a. Copies WHO, and WHAT UNIT, the CAN report. Maintain radio contact long enough to get sufficient information to initiate an adequate rescue plan.
   b. Start help order immediately.
      i. Communicate self-rescue techniques, including calming actions ("calm down and control your breathing").
      ii. Use the mayday firefighter's own company to assist with the rescue.
      iii. Use a company already in the hazard zone to assist with the rescue.
      iv. If assigned, use RIT company located outside of the hazard zone.
      v. If RIT is not assigned, use the On-Deck company located outside of the hazard zone.

3. Emergency traffic (use emergency tones); Command **ANNOUNCES WHO, and WHAT UNIT, and Pertinent Information** to the fire ground.
4. Command announces a plan to include: Firefighter rescue tactical action and Allocating Units.
5. Command can Assign Divisions or Groups, and Alternate Frequencies on complex incidents.
6. Command requests additional alarms, EMS, Special Units, etc.

COMMUNICATIONS PLAN

- In most cases it is preferred to leave Mayday **and** Operations on the primary TAC Channel.
  - **Unless critical to Mayday or Fire Ground operations, all operating companies will maintain radio silence once a Mayday has been transmitted**
- Dispatch can only monitor TAC-1, MFR Tac-R, North County, and Medford Primary.
- 2 frequencies are the limit that each resource can monitor.
- If a Rescue Group is designated, IC may opt to have them operate on TAC-6

COMMAND:

- Consider expanding your Incident Command Team to include a PIO and a liaison for family members of firefighters.
- Discontinue "**Firefighter Rescue Tactical Action**" when the rescue is complete or when discontinuing the rescue efforts. Broadcast the transition of the incident and conduct a PAR when discontinuing firefighter rescue strategy.

EXAMPLE:

Downed Firefighter: "MAYDAY, MAYDAY, MAYDAY Merrill E22, roof collapse 2nd floor, egress cut off, ladder to the Charlie/David corner for window egress, air 3000"
Command: "Merrill I copy your Mayday, I understand your egress is cut off from a roof collapse on the second floor, your air is at 3000, and you need a ladder to the window on the Charlie/David corner. Control your breathing, shelter in place, we are getting you a ladder.
Command: E22 are you able to reach Merrill to assist with his rescue?
E22: Affirmative we can reach him, will need to exit via ladder and assistance getting Merrill down, our egress is cut off.
Command: E15 (On Deck) throw a ladder, second floor Charlie/David corner to assist Merrill and E22 with egress.
Command: Command has emergency traffic. We have a mayday from Merrill on the second floor, his egress is cut off by roof collapse, rescue operations are underway. BC 2 will assume Alpha Division and continue Fire Control and Primary Search with E21 and E14. Maintain radio discipline.
Command: Central from command…dispatch a second alarm to this incident and a mercy unit code 3. Consider PIO and family liaison.

MOTOR VEHICLE COLLISIONS

KEY CONSIDERATIONS:

- All D3 engines carry 1 heavy cutter, 1 spreader, 1 ram, 2 chocks, 1 strut and come-a-long.
- All MFR engines have 1 battery powered Combi-Tool and 4 chocks.
- MFR Heavy Rescue carries 2 cutters, spreader, 4 rams, 4 struts, miscellaneous heavy gear and a winch. BC3 has a winch also.
- Keep unprotected rescuers (Mercy) outside of the inner circle.
- On EVERY MVC: ensure vehicles are in park, E-Brake set, key out of ignition (FOBs at least 50 feet from the vehicle), Hazards on.

PROTOCOL:

1. While responding attempt to access vehicle system information utilizing MDC or smartphone apps if vehicle information is known.
2. Order additional resources early. For known extrications:
    - **MFR:** Add the Heavy Rescue and closest BC. *If the heavy is the 1st unit responding add the closest engine.*
    - **FD3:** Add closest engine or Heavy Rescue and ensure closest BC is responding.
    - **MFR / FD3 –** Add ODOT for interstate/ highway response.
3. Provide an Arrival Report and begin your Size-Up. Considerations:
    - Vehicle type and condition – look for alternative fuel systems
    - Victim color and count using START triage system
    - Check surrounding area for ejected victims / involved pedestrians
    - Traffic status
4. Account for appropriate initial traffic management.
5. Broadcast Follow-Up Report and order additional resources if needed.
6. Provide for fire protection by placing an ABC extinguisher in the outer circle at the minimum, consider a 1 ¾" hose line.
7. Place the following gear inside the inner circle:
    - Stabilization chocks.
    - Extrication Prep Bag, if equipped.
    - Any specific extrication tools as needed.
8. Begin appropriate extrication procedures. Announce starting and ending to record times. See performance guidelines for many options.
9. All vehicles that have sustained enough damage to compromise the vehicles electrical system and that are not drivable will have the battery disconnected by cutting the cables or removing the battery. **Cut the negative lead first and remove a 4" section of cable to prevent reconnection.**

PERSONNEL ACCOUNTABILITY REPORT

KEY CONSIDERATIONS:

- Conducting a Roll Call is a very specific and organized exercise. Know your part and be quick.
- Captains only reply with your number of people you can **actually** account for. See below.
- Start rescue ops first and then conduct your PAR if you suspect a FF or crew is in trouble.
- Whenever possible conduct without the use of radio.

CONSIDERATIONS:

- Speed and accuracy of the roll-call is essential.
- **You can't account for them unless you can actually see, hear, or feel them. Absolute confirmation is required.**
- **Command will compare your reported number to your accountability passport tag.**
- Officers: Account for **all** members **who rode with you to the call**. Examples from a 4 person crew:
  - "8102 has a PAR of 3, and Engineer Smith is at the pump panel".
  - "8102 has a PAR of 2, and FF's Tarver and Hanner are missing"
  - "8102 has a PAR of 4 and I also have FF Carpenter with me assigned from 7701"
  - "8102 has a PAR of 4. (When all are physically present with you)
- The complexity of the incident may create additional radio traffic for a Division Supervisor when a PAR is called, especially if the supervisor cannot see the assigned crews.
- The Incident Commander may call for a PAR only for personnel working in the Hot Zone. Depending on the complexity, Command may be able to visualize personnel outside of the Hot Zone.

PROTOCOL:

1. IC announces: **ALL CREWS STANDBY FOR A ROLL CALL / PAR…**
2. IC may announce that they already have visual accounting for some crews.
3. IC will then call for a specific unit or Division (Charlie Division…, 8102…)
4. The Division or company officer answers with their accounted for number of personnel and additional information only if necessary (see above in "Considerations"). Example: **Charlie Division has a PAR for 7708, 8121, and 8102…or 8102 has a PAR**
5. IC compares reported number to the accountability passport or printed roster.
6. IC will confirm that a member or members is/are unaccounted for and broadcast this to the fireground. **Any member who can account for the missing firefighter(s) shall immediately communicate. IC will declare a MAYDAY when a FF is truly missing. See MAYDAY Protocol.**
7. IC calls next unit or next Division.

PERSONNEL ACCOUNTABILITY REPORT

IC shall consider a PAR:

- After there is a change from an offensive to defensive fire ground strategy.
- When there is a catastrophic change in the incident such as building collapse, explosion, backdraft, sudden flooding, release of vapor clouds, etc.
- When the Incident Commander or Crew Leader determines that a need for a PAR exists.

When a Supervisor presumes a firefighter or crew is missing or trapped, the Incident Commander will start rescue efforts **as soon as possible** at the last known location. **The IC will then** conduct a PAR of the emergency incident to confirm the status of missing personnel.
When a crew is relieved of an assignment and transferred to a different supervisor, supervisors will confirm that crew leaders have conducted a PAR.

RIT – PRE-ACTIVATION

KEY CONSIDERATIONS:

- The RIT is expected to be ready to activate and perform the assigned tasks in this protocol quickly and efficiently.
- Know your role. Move with purpose. Critical events have little discretionary time. Do your assigned jobs, don't ask for permission. If outside your role, communicate – don't freelance.
- Stay off your air unless deployed inside the building.
- An entire company is the optimal RIT. Two person teams can work but are less favorable.

PROTOCOL:

1. Each person on the company has assigned jobs.
2. The default radio channel the RIT company will use as a **chat channel is TAC 5**.
3. Your radio designator prior to deployment is "RIT" or "8105 / RIT".
    - Upon an activation you will become the RESCUE GROUP if more companies are added.
4. **Take any opportunity to make the fireground safer - Coordinate and communicate**.
5. Remain available while conducting your prevention activities. The IC can use you for activities like laddering, shagging hose, recon, utilities, etc.
6. Closely monitor operational radio channels and incident accountability.

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Monitor Radio Traffic to develop situation awareness.</td><td rowspan="2">Maneuver as close to the scene as possible. You will need a lot of gear.</td><td>Review RIT protocol and refresh crew.</td></tr>
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Fix these ASAP</td><td>Have two radios and the TIC
Know the orientation of the structure, Alpha, Bravo, Charlie, David, etc.</td><td>• Does the Attack Eng. have a <u>water supply?</u> (Make sure there is a plan.)
• Does the attack pumper have a full tank? (NO? - advise pumping engineer)
• Is there a second attack line stretched? (NO? - Pull it now)</td><td>Attain the following equipment from your engine
• RIT Pack from <u>your</u> engine
• RIT Tarp
• (2) Hand lanterns</td></tr>
<tr><td>NEXT</td><td>Meet with IC:
• Get scene operational update.
o What's happening now?
o What does the IC anticipate?
• Who will be RIT Group Sup?
• IC priorities for softening?</td><td>Assess scene lighting. Improve as necessary if fast. Otherwise note and communicate needs at crew RIT size-up.

Then:
• Help firefighter(s) fill out gear cache and confirm that RIT pack is operational</td><td>Establish RIT gear cache in a good spot. Finish gathering gear (off your engine when possible):
• 2nd TIC off BC rig
• 2nd RIT pack off BC rig.
• Search rope
• IRONS
• 6' NYRH
• (2) More portable hand lanterns.
• Any other incident specific equipment.</td></tr>
<tr><td colspan="4">RIT separates and performs 360 survey.
Take notes of issues that will require attention. Immediately fix any targets of opportunity while surveying the fire, building and scene.
<u>Utilize your TAC channel during the 360 to coordinate and reduce duplication of effort. MEET UP AND PERFORM CREW RIT SIZE_UP.</u></td></tr>
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• Kinked hose line / bulk of hose at engine not door
• Poorly placed hose lines; hose not ready to advance
• Broken glass not cleared from windows
• Light exits with lanterns; improve incident lighting
• Throw ladders – secure those already thrown if necessary
• Place Life Hazard Tape where needed
• Remove security bars / gates
• Secure utilities
• Stretch additional hose lines
• Help IC maintain situation awareness
• Force exterior doors and keep closed</td></tr>
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RIT – ACTIVATION

KEY CONSIDERATIONS:

- Upon a MAYDAY take immediate action in coordination with the IC.
- Crews already working are typically in the best position to affect an immediate search/rescue – coordinate with the IC.
- RIT Officer is best kept with the RIT team and task level. They know the building, the crew, and the fire. They are also well equipped to be in the IDLH. A Rescue Group Supervisor should be assigned when additional crews are deployed (when there is a group).

PROTOCOL:

1. Upon MAYDAY, all RIT members will marshal at the RIT gear cache unless otherwise directed.
   - Quick Briefing and then execute plan coordinated with IC or Rescue Group Supervisor

Equipment Assignment During a RIT ACTIVATION *Positional Considerations (May adjust as necessary)*		
OFFICER **(Lead and Communicate)**	**ENGINEER** **(Air)**	**FIREFIGHTER(S)** **(Packaging)**
• Thermal Imager • Search Rope • Tool of choice • Light	• RIT bag • Light • Tool of choice	• ORCA bag • Irons • Light

TASKS AT DOWNED FIREFIGHTER

- Have the Officer/Leader step back (don't get sucked into task level) – Be able to communicate effectively and work up a plan
- All interior rescue communications with Rescue Group Supervisor will go through the Officer/Leader
- Control the PASS alarm
- Manage SCBA air to downed FF and rescuers until outside of the building
- Package the downed Firefighter(s)

2. The officer of the RIT company may initially operate either in the building at the task level or outside in a hands-off management style. It will be dependent on MAYDAY circumstances, how many victims and their location, how much RIT pre-activation work has occurred, how familiar the RIT is with the building and scene operations, expected rescue duration, and how many rescuers are available and needing to be led and managed. For anything other than a simple grab-and-go, a Rescue Group Supervisor should be assigned and the Firefighter Rescue Communications Plan established (see MAYDAY Management Protocol).

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• Place Life Hazard Tape where needed
• Remove security bars / gates
• Secure utilities
• Stretch additional hose lines
• Help IC maintain situation awareness
• Force exterior doors and keep closed</td></tr>
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RURAL WATER SUPPLY

KEY CONSIDERATIONS:

- Drafting is an *Engineer* function. Setting up a draft site or running a Rural Water Supply is a *company* function.
- Consult Tender chart and Cheat Sheet on page 3.
- Communication between Fill-Site Pumper, Supply Pumper, Attack Pumper, and Water Supply Officer is critical – get your own tactical channel ASAP.
- **REMEMBER: A long relay pumping operation from the last hydrant might out-perform a water shuttle and in many cases will require less effort in the long-run.**

CONSIDERTIONS:

- **Nurse operations offer very limited water supply (both in time and volume). *When in doubt…set up the shuttle early.***
- When utilizing a Fill-Site pumper to fill tenders, consider dropping the officer at the fire scene to be the Water Supply Officer and sending the balance of the crew to the **fill site** to set-up and fill tenders.
- Water is at a premium in rural operations. Keep it off the ground.
- Consider how the ground will perform when you flood it, avoid getting engines stuck.

PROTOCOL:

FIRES REQUIRING FEWER GPM's Nursing Operation
1. Supply Pumper pumps to Attack engine from its tank.
2. Attack Pumper should receive water directly into the tank when possible.
3. Engineers communicate regarding needed pressures.
4. Arriving tenders feed the supply engine.

FIRES REQUIRING GREATER GPM's Tender Shuttle Operations
1. *First Due engine* goes directly to the fire building, does not lay in. Mark the driveway(s) as necessary. **This is the Attack Pumper.** • Remember to note total distance in from the street if possible. Account for **1/10th of a mile as 600 feet.** • Communicate with second due if greater than a hose bed worth of hose is needed so they can adapt.
2. *Second Due engine* **STAGES UNTIL** first due engine is sure they are in the right driveway! Then proceeds to the scene laying a supply line from the street. • Connect the supply line (4" preferred) to the Attack Pumper. • Consider also nursing off your tank with a separate line.
3. *Third Due engine* becomes the **Supply Pumper** on the road and sets up the Tender Dump Site.

WATER SUPPLY OFFICER
Tender Shuttle Operations

1. **IC assigns Water Supply Officer**. Good candidates are:
   - **Officer** of the Fill-Site Pumper (leave them at the fire scene if possible)
   - Supply Pumper **officer or engineer**.
   - Available staff officer (great choice to avoid tying up IDLH capable FF's.)
2. **Water Supply Officer sizes up the needs**:
   - Obtain the needed GPM from the IC.
   - Determine how many tenders you will need.
   - Determine best fill site for incoming tenders.
   - Determine the optimal travel route for tenders.
3. **Order additional tenders as needed through the IC (the IC may assign water supply to handle (and track) his own resource ordering through ECSO)**.
4. **Obtain Tactical Channel for all tenders and Water Supply Pumpers**. Attack, Supply and Fill engineers will need a second radio to monitor both the Water Supply channel and the Operational channel of the fire attack.
5. Coordinate Tender Shuttle
   - Stagger multiple tenders so they are not all waiting to fill or dump at the same time.
   - Consider multiple fill sites if more than 3 tenders.

DETERMINING HOW MANY TENDERS YOU WILL NEED

1. Determine how many GPM are required on the fire ground. Get this number from the IC.
2. Assign a GPM value to each tender responding
   - **Tank size of the tender (minus 10%) divided by the total turn-around-time.**
   - EXAMPLE: 3500 gallon tender with a 15 minute TAT is a **200 GPM tender**.
     - 3150 / 15 = 210 GPM
3. Add the GPM capability from above for all your responding tenders. This is your **MAXIMUM CONTINUOUS FLOW.**
4. Order what you need to stay above the needed GPM. You will be short if:
   - GPM demand increases.
   - Tenders start to stack at fill or dump sites.

RURAL WATER SUPPLY

TENDER STATS				
Number	**Tank Size (gallons)**	**Pota-Tank Size (gallons)**	**Side Dump?**	**MISCELLANEOUS**
6441	2800	2500	NO	1 floating pump
7441	2000	2500	YES	Rated fire pump
7442	2000	2500	YES	
7741	2000	2500	YES	Rated fire pump
7744	3500	3000	NO	
7745	2000	2500	YES	Rated fire pump
7746	2000	2500	YES	Rated fire pump
7747	3500	3000	NO	
8146	2000	2500	YES	Rated fire pump / float pump
8341	2000	2000	YES	Rated fire pump / float pump
8343	2000	2500	YES	Rated fire pump / float pump
8541	3000	1500	NO	Rated fire pump
8542	3000	1500	NO	Rated fire pump
8543	3000	1500	NO	Rated fire pump
8544	2000	1500	NO	Rated fire pump
8545	2000	1500	NO	Rated fire pump

** Josephine County departments have +/- 10 water tenders available**

TENDER GPM CHEATSHEET (rounded) **MAXIMUM CONTINUOS FLOW** PROVIDED BY **EACH** TENDER IN THE SYSTEM			
Tender Tank Size (GPM)	15 minute TAT	20 minute TAT	30 minute TAT
2000	120 GPM	90 GPM	60 GPM
3000	180 GPM	135 GPM	90 GPM
3500	210 GPM	160 GPM	100 GPM

SEARCH – DEFENSIVE

KEY CONSIDERATIONS:

- Accomplished while performing other tasks / functions.
- If you locate a victim you MUST broadcast the rescue need and get help coming to you. The best practice is to maintain voice, visual, or touch with your partner(s).

PROTOCOL:

1. Almost all members on the fire ground will have opportunities to defensively search as they carry out their assigned function. Members should be looking for these opportunities without freelancing.

2. You will defensively search areas that are IDLH atmospheres from a defensive position while performing other tasks or functions.

3. Use your Thermal Imager to sweep areas inside openings, doors, windows, and yell for victims.

4. If victims are located determine if they are viable, **if not, secure the area as best as you can and recover the victim at an appropriate time**.

5. **If victims are viable** coordinate with the IC, get help coming, and perform the rescue.

SEARCH – LARGE AREA

KEY CONSIDERATIONS:

- Know your role and COMMUNICATE!
- Search team size can be scaled from 2 members up to 7.
- Common applications: Structure with large open areas, structures with multiple partitions, intersecting hallways, or complex interiors.
- Officers: allow for exit time to complete these searches, they will take a long time.
- Almost all Large Area Searches will involve using untethered searchers off an anchored rope or hose, but we still have the rings and tethers to use traditionally.

PROTOCOL:

A hose or rope is used as an anchor point that leads to the outside or an absolutely safe area inside the building. The searcher(s) is untethered and conducts search operations off the anchor line using it as a reference while the officer stays oriented and monitors. Searchers move off the trunk line as needed and directed. Searchers may tether a rope for parts of the operation as needed. Searchers actively communicate with the officer throughout the operation. The officer will then adjust the plan and path based on those findings and what the fire is doing.

Officer considerations	Firefighter considerations
• Walk in/out when possible. • Tie the rope off with any change in direction. • Closely monitor all air supplies. • Closely monitor location in the building. • Consider rope or hose damage. • Be ready to employ traditional search methods. • Consider alternative exit options. • Order replacement crews early. • Consider better entry points for secondary crews. • Travel with your left hand on the rope while entering and exiting. • Brief other companies reliving you – try not to allow duplication. • Mark searched areas (see marking protocol).	• Walk in/out when possible. • Closely monitor your air supply. • Communicate well. Remember the officer may not be able to see you; "Over there" is confusing, etc. • Closely monitor location in the building. • Be ready to employ traditional search methods. • Consider alternative exit options. • Look for other ways in / out. • Travel with your left hand on the rope while entering and exiting. • Mark searched areas (see marking protocol). • Be ready to deploy a tether when needed.

SEARCH – OFF THE HOSELINE

KEY CONSIDERATIONS:

- Searching performed by the fire control company or group while they advance the attack line.
- Often a good option early in the incident when fewer companies are available or when we have a scenario where putting the fire out quickly will save more lives than rescuing victims.
- The search techniques employed during this operation will likely be less complete and thorough. Secondary searchers will need to be extra vigilant.

PROTOCOL:

1. Getting the hose line to the seat of the fire remains the number 1 priority of this company but you are being asked to also quickly search as you go.
2. When you locate a victim, first communicate with IC, then you have several options:
    - Push the rescue to another company.
    - Split your crew to perform the recue, while still advancing the line.
    - Split your crew to perform the recue, while leaving a member to "hold" the fire.
    - Confine the fire first, and then perform the rescue.
    - Shelter the victim in place.
    - Stop the fire attack and perform the rescue (this may be the best option or the worst option).

SEARCH – ORIENTED LEADER

KEY CONSIDERATIONS:

- Officer stays oriented and monitors FF(s) with the Thermal Imager and other means.
- FF's remember to only search what the officer CAN'T see with the Imager; MOVE QUICKLY.
- Good option for structures with a center hallway with multiple rooms.
- Always be looking for new egress options and pay attention to what the fire is doing.

PROTOCOL:

Company Officer:	Firefighter(s):
Perform search profile and building SIZE-UP. • Coordinate with adjoining resources being deployed. • Choose point of entry / egress and place a light when possible.	Gather search tools and perform your own search assessment. • Force the door if necessary • Place a light at entry / egress if possible • How are you going to get out?
Enter the building and choose path. • Communicate with IC (directed or undirected) • Communicate PAR and entry point.	Enter the building. • Utilize quick and accurate personal search skills • Communicate effectivity
Scan each area with your Thermal Imager • If you can clear the whole area – move-on, no need to deploy your firefighter(s) • If you cannot – have you teammates search the areas you can't see, be specific. • Maintain voice, visual, or touch.	Officer will assign a specific area / room requiring a search. • Communicate your intended path and get to the area. "Going right", etc.

Monitor your partners with a Thermal Imager while they search.
• Continuously monitor radio comms…
  o Where is the fire control crew operating?
  o What is the fire doing?
	Maintain situational awareness:
	• Look for other egress
	• Look for other rooms
	• Continuously monitor radio comms…
	  o Where is the fire control crew operating?
	  o What is the fire doing?
	• Maintain voice, visual, or touch.

Evaluate the feedback from you crew: • Advance or search more rooms off this one? • Split the crew? One on each side of hallway? • Stick to the Hallway? • Retreat, etc.	Return to the officers location • Communicate what you found • Move on quickly
Exit at the closest egress, notify IC and include PAR.	Exit at the closest egress, notify IC and include PAR.

SEARCH – ROOM MARKINGS

KEY CONSIDERATIONS:

- Carry a YELLOW lumber crayon or other marking option. Tool scratches can work but are not preferred (unnecessary damage and are very hard to see).
- Use this protocol whenever room marking is **necessary** which will be a variable. It will not be required during all searches – think large buildings or multiple similar rooms (hotels, VA DOM, office building, etc.)

INDIVIDUAL ROOMS – Used during Search Operations

1. Mark the door with a single slash on the way **in.** \
2. Mark the door with a second slash on the way **out.** **X**
3. **Circle** the X when completing a secondary search. Ⓧ

SEARCH – VENT ENTER ISOLATE SEARCH

KEY CONSIDERATIONS:

- **PPA is an ABSOLUTE CONTRAINDICATION of VEIS**.
- VEIS is a tactic, not an operational mode. VEIS may be used in multiple different modes (Offensive, Defensive, etc.)
- Remember to search outside the door prior to closing it.
- Let the room vent for a few seconds, read the smoke, and conduct a GO / NO-GO assessment.

CONSIDERATIONS:

- Use the buddy system (keeping in mind Voice, Visual, or Touch)
- Notify command of your entry point and coordinate with other teams.
- Place a light and / or hand tool at the opening when you enter so that you know when you have returned to the correct window / door.

PROTOCOL:

1. Ventilate or open up a small area of a structure such as a bedroom by opening up or breaking a window or door.
2. Remove all glass, window hardware and window coverings/draperies allow easy access of search personnel.
3. Defensively search from the opening prior to entering.
4. Maintain constant orientation with your entry point and partner.
5. Sound the floor and enter through the window/opening, **proceed immediately to the door, quickly search outside it, and then CLOSE it**!
    - **If a victim is located on the way to the door, make note and continue to the door. Victim removal takes time, and you will both want the protection provided by the closed door.**
6. Your partner shall monitor you from the opening.
7. Search the room quickly and exit through the same initial opening.
8. Notify the IC that you are out.

SEVERE WEATHER EVENTS

KEY CONSIDERATIONS:

- Large amounts of suction can be generated when clearing culverts and storm drains. FF's have been killed in this scenario. Watch out.
- Flood water may carry a multitude of hazardous elements.
- Always consider the risk of freezing hose lines, ladders, SCBA's, etc.
- BC's can suspend normal dispatch and response plans as needed.

FIRE STATION PROTOCOL:

1. Ensure pumps, plumbing, and booster reels are drained on any apparatus left outside in freezing weather.
2. Clear roof scuppers, drains, sidewalks, and ramps of ice and snow. Prep outside faucets.
3. At the end of fire season all crews will inspect vehicle and personal traction devices and make them ready for use; MCS will reinstall all on-spot chain cans.
4. Apparatus chains and boot chains will be placed on the vehicles on November 1st or sooner if snow is predicted.

RESPONSE PROTOCOL:

Freezing Weather / Snow:

1. Utilize 4x4 apparatus as needed.
2. Officers notify the BC when an apparatus is going to be chained.
    - Because of the changes in elevation within an individual response district crews should consider chaining their reserve apparatus and leaving the primary unchained.
3. Max speed when chained is 30 MPH.
4. ONSPOT CHAINS:
    - Automatic chains are not the same as full tire chains
    - Best utilized when inconsistent conditions exist (elevation changes, sudden weather is encountered, varied response district weather conditions)
    - Max 30 MPH
    - Only work when wheel is turning. Wheel lock-up must be avoided when utilizing
    - Can be engaged 2 mph – 25 mph while moving
5. Inspect chains after each response for damage and fit.
6. During periods of rapid thawing we may only be able to shut off domestic water supply and move-on. Refer occupant to other vendors for water removal assistance (Restoration companies).
7. BC may suspend "Water Removal" assistance during periods of high demand.

SEVERE WEATHER EVENTS

Flooding:

1. Monitor your response district for changing conditions. Notify ECSO and BC of response restrictions due to road closures.
2. Monitor river / stream status in your area.
3. PFD's are **required** when personnel are working in or near flood water.
4. Coordinate with Law, Public works, CERT, and Jackson County Emergency Management.
5. 2 feet of moving water will likely move most vehicles.

Lightening Events:

1. Ensure your crews safety. Even if on-scene activity must be curtailed.
2. Retreat to your vehicle as a safety zone.

BC / Incident Commander Considerations:

- Consider coordinating with the other BC's to maximize additional callback company deployment.
- Consider staging brush rigs at I-5 interchanges to recon and asses MVC activity during a period of high call volume. Avoid committing engine companies.
- Request additional command staff and assume smaller "area command" or "Divisions" across the district. Have ECSO push calls to the appropriate chief for assessment and crew allocation without "toning out".
- Suspend regular dispatch procedures. BC or DO can respond to ECSO and assist the dispatch supervisor.

SPRINKLER SYSTEMS / STANDPIPES

KEY CONSIDERATIONS:

- Fire Department personnel SHALL NOT repair damaged sprinkler heads.
- Sprinkler Control Valves should be cautiously closed and ONLY at the direction of the Incident Commander. When possible, post a firefighter at the valve after shutdown if incident operations are continuing.
- Use highest rated pumps when possible.

PROTOCOL:

1. Spot near the Sprinkler and/or Standpipe FDC if possible. Locate the closest hydrant, one is usually supplied for this purpose.
    - Use system hydrants and avoid "Yard Hydrants" when possible.
    - Consider parking away if falling debris or glass is an issue, don't block truck access.
2. Establish all Hydrant and FDC connections. **3" or 4" hose is required**. CHECK THE FDC SIAMESE for debris. Connect an additional supply line to the FDC as time allows.
3. Pump the Sprinkler system at **150psi** or the pressure on the connection plate.
4. Pump the Standpipe or combination Sprinkler/Standpipe system at **150psi** to start. Then determine the appropriate hydraulics based on hose and nozzle configuration.
5. Notify the IC if pressure or volume issues develop, these are signs of changings fire and system conditions.
6. While pumping the Sprinkler/Standpipe system, DO NOT pump/support anything else.
7. Shut down the system(s) and notify the building owner/reps about the current status of the system. Advise them it is there responsibility to promptly repair. Refer them to the Fire Marshal's Office for assistance.

TROUBLESHOOTING:

- If swivel is damaged or frozen consider using double male and double female to make connections, or twist hose '4' revolutions and untwist when making the connection.
- If Standpipe FDC connection is bad, try hooking up on the first floor (double female needed).

STAGING

KEY CONSIDERATIONS:

- On incidents in the roadway all units should park on the same side of the road if possible.

PROTOCOL:

LEVEL 1 STAGING: (specific pre-plan staging mandates will supersede this plan)

- Applies to **ALL** multi-company responses.
- First company respond to the scene directly and position for the best advantage.
- All other units will stage:
    - In their direction of travel
    - Uncommitted
    - +/- 1 block out but strongly consider **NOT** passing the last hydrant.
    - Positioned for maximum tactical advantage with regard to access, approach, water supply, etc.
    - Report unit number, staged status, and location.
        - Stay off the air unless an unreasonable amount of time has elapsed.

LEVEL 2 STAGING:

- Utilized on large complex incidents where an on-scene reserve of companies is desired.
- When Level 2 staging is established all companies still responding will proceed to that location. Companies in Level 1 staging will stay there.
- Specific designated location identified by the Incident Commander. Consider:
    - Away from the ICP and the scene far enough to allow for apparatus to gather and maneuver safely. Also should allow for a variety of scene approach options.
- It is helpful to establish Level 2 Staging Area prior to calling for additional alarms so those companies can be advised at the time of dispatch.
- First arriving company or staff officer in the Staging Area is the STAGING OFFICER, unless advised otherwise. In some cases the IC may assign a company to scout and establish the Level 2 Staging Area.
- When responding to a Level 2 Staging Area stay on the dispatch channel and monitor ops channel(s).
- Upon arrival in staging - crews should stay together and turn-off your emergency lights.

STAGING

STAGING AREA OFFICER:

Designator – "STAGING"

Reports to IC or OPS if established

1. Responding companies will report their arrival in staging on the DISPATCH FREQUENCY.
2. When requested by IC, "STAGING" will verbally assign the appropriate company to report to the specific assignment provided by the IC. Tell the assigned company:
    a. Where to go
    b. Whom to report to
    c. Specific frequency assignments
3. Advise IC which company has been assigned.

ADDITIONAL RESPONSIBILITIES:

1. Establish staging area lay-out
2. Establish check in as appropriate
3. Fill the request from IC
4. Report specific unit assignments to IC
5. Request maintenance assistance for staged units
6. Determine support needs for staged units:
    a. Food
    b. Sanitation
    c. Security
7. Mark and identify the staging area if necessary
8. Advise IC if resources available in staging are becoming limited so the IC may order more resources if necessary.
9. Handle demobilization in accordance with plan from IC

STRUCTURE FIRE – COMMAND

KEY CONSIDERATIONS:

- **2 in / 2 out is required unless the fire is *incipient* or you are performing rescue(s).**
- Ensure size-up and incident updates are copied by dispatch, sometimes this will require parroting on a different channel. Have other companies or BC's assist you with this whenever possible.

ENROUTE PROTOCOLS:

1. Advise ECSO / and first due BC if responding from any location other than your station/quarters.
2. BC should attempt to monitor all companies as able. After all crews are enroute and the dispatcher "goes with info" the BC shall switch the alarm to **Medford TAC Repeat**. *Switch **every** structure fire response without delay.* (Multiple incidents and some geographic areas require alternate TAC Channels; RV TAC 1 or Medford TAC-Direct are good alternates.
3. Companies who become available from other calls or details:
    - If you are in the first due area where the fire is – add yourself to the alarm.
    - If you believe your crew would arrive sooner than a responding company-contact the BC and they will decide if you should be added.
    - The BC will manage companies to ensure **only** the appropriate number of companies are responding.

TERMINOLOGY:

Nothing Showing: When the first company arrives and advises nothing is showing it is understood they will be investigating. Additional responding companies will continue Code 1 unless directed to stage or return by the Incident Commander.

Light Smoke Showing: Describes a situation where there is smoke showing but may be remedied **without** the use of all responding companies. When the first company arrives and advises light smoke showing it is understood they will be investigating. Additional responding companies will continue Code 3 unless directed to reduce, stage, or return by the Incident Commander.

Working Fire: Describes a situation that will likely require the commitment of all responding companies. This designator advises dispatch that companies will be engaged in tactical activities and possibly held on scene for an extended period of time.

Defensive Fire Conditions: The incident problem has evolved to the point that lives and property are no longer savable and offensive tactics are no longer effective or safe; the primary focus with these conditions will generally be exposure protection.

On-Deck: Defined as a forward staging position located just outside the immediate hazard zone. Once a crew is assigned to an On-Deck position, they are first and foremost available to assist with a MAYDAY until they are given an assignment by command. Personnel will walk into the forward "On-Deck" area with full PPE, RIT bag, RIT tarp/carryall, and a flashlight. The first engine assigned to a dedicated "RIT" assignment will establish the RIT cache (see the "RIT – Pre-Activation" protocol).

ARRIVAL (Size-Up) PROTOCOLS:

1. Provide **Arrival Report**.
    - Describe the building; size, height, and occupancy type. For big box buildings or well-known buildings call it by name (Fred Meyer, Wal-Mart, Lowe's, etc.)
    - Describe the problem AND the location; nothing/light smoke showing, working fire, or defensive fire conditions
    - Declaration the Strategy; Offensive or Defensive
    - State your Initial Incident Action Plan (IAP)
        - Utilize the Task, Location, Objective (TLO) format
            - Example; stretching a transitional line (**T**) to the Bravo side (**L**) for fire control and exposure protection (**O**)
    - Determine resource needs (cancel, reduce, stage, or request greater alarm)
    - Assume and name Command
2. Provide a **Follow-Up Radio Report** on the command channel. If ECSO does not parrot you must rebroadcast on the dispatch channel also. This includes any additional critical information that was not reported on the Arrival Report including:
    - The results of the 360°
    - Hazards Identified including safety concerns and/or the presence of a basement
    - Designate the Alpha side
    - State if you have your own water supply
    - Identify if there are any changes to the IAP
    - Announce the accountability point (this may also establish the Alpha/Adam side)

    ****Note**** It is assumed that Company Officers (IC #1) will be engaged at the task level as ***Working Command***. Declare when and where a Fixed Command is established.
3. Transfer command when / if appropriate.

COMMAND OPTIONS:

- **Fixed Command:**

  A fixed command post is generally either inside the vehicle or outside from the street.

  The emergency situation requires a strong, direct command from the outset due to the size of the fire, the complexity/potential of the incident, or the possibility of the expansion of the incident organization. In these cases the officer will assume a fixed command position and maintain that position until relieved, often taking the officer out of direct supervision of their company. Fixed command post locations should be broadcast during the Follow-Up Radio Report or during a transfer of command from IC #1 (Company Officer) to IC #2 (Chief Officer).

COMMAND OPTIONS CONTINUED:

- **Working Command:**
  Situations which require immediate action to try and stabilize the situation. The officer will be forward with the company working at the task level. This option generally requires the incident commander to remain in direct supervision and with their company and will end with one of the following:
  - The incident is stabilized and command is terminated.
  - Command is passed to a subsequent arriving officer.
  - The incident is not stabilized and the officer must transition to a Fixed Command Position.

OPERATIONAL STRATEGY/MODE:

- **OFFENSIVE:** Interior operations or exterior operations that occur in close proximity to the hazard zone. We will take calculated risk and at times risk a lot. **You have three offensive tactical action options - see below.**
- **DEFENSIVE:** Exclusively an exterior operation with the highest priority of providing for **FIREFIGHTER SAFETY** and to **protect exposures**. Generally occurs when interior conditions, fire volume, resource availability, or other incident priorities prohibit an offensive strategy. Water is applied through exterior openings and defensive fire control shall occur from **beyond** the collapse, hazard, and/or hot zone.

OFFENSIVE TACTICAL ACTIONS:

1. **Transitional Attack:** Commonly the most effective initial tactical action. Streams are directed into the building from the exterior until sufficient interior improvement allows for the interior advance to occur. The transitional attack is carried out in very close proximity to the building with the understanding that we intend to go inside as quickly as possible.

   Transitional Attack Considerations:
   - Choose a large enough line, when in doubt--choose the larger line.
   - Smooth bore or straight stream to the ceiling in the fire room(s) is the best option. Avoid fog streams. Avoid failing the ceiling and letting the fire into the attic space.
   - Either make a rapid offensive transition or keep water flowing until entry is made. The fire will return to its original size within 100 seconds after water stops flowing.
2. **Interior Fire Control:** Lines are advanced and water flowed inside the building while advancing to the seat of the fire. **2 in / 2 out is mandatory.**
3. **Rescue (May be either from a fixed or working command position)**:
   Personnel are performing a rescue of a person **whom is in imminent danger.** Members and especially the IC may be unable to communicate much**. 2-in and 2-out is not required during the rescue of a person in imminent danger.** Members may either be inside or outside the structure. **Next arriving officer is LIKELY to assume command UPON ARRIVAL. *You cannot be an IC unless you are on-scene.***

STRUCTURE FIRE – COMMAND

TRANSFER OF COMMAND:

1. Generally, command officers will relieve another officer when:
    - The original IC will be more effective in a subordinate position. (Company Officer, Division/Group Supervisor, Incident Safety Officer, etc.)
    - IC requests relief or the original IC is not performing in a satisfactory manner
    - The Authority Having Jurisdiction (AHJ) needs to assume command due to political or financial complexities of the incident
2. Transfer of command:
    - IC #2 (generally a Chief Officer) arrives and timestamps their arrival using the MDC
    - IC #2 updates their command board/tactical worksheet and performs their own 360° to gain a good situational awareness of the incident
    - IC #2 communicates with IC #1 face-to-face or by radio to obtain a briefing
        - Verify all operating positions match the current incident conditions
        - Verify the position/function of all hazard zone resources with IC #1 and get a CAN report
        - Announce to IC #1 that you'll be "assuming command"
    - Contact ECSO and confirm the command transfer
        - *"BAT2 has assumed Main Street Command*
        - Announce/re-state the current strategy
        - Identify the fixed location of the command post
        - State the resource determination (continue assignment, greater alarm, etc.)

IC BENCHMARKS to ECSO (when appropriate)

*****Ensure these are recorded and timestamped by broadcasting on the appropriate channel*****

- Provide arrival report and follow up radio report
- Declare operational strategy/mode
- Assume and name command
- Transfer of command
- Incident Safety Officer (ISO) established (if delegated)
- Fire knockdown
- Primary search complete **and** its result
- Secondary search complete **and** its result
- Any change to operational strategy/mode (strategic shift)
- Abandon, Withdrawal, etc.
- PAR/Rollcall results
- MAYDAY DECLARED
- Overhaul period initiated (see Overhaul Protocol)

STRUCTURE FIRE – FIRE CONTROL

KEY CONSIDERATIONS:

- Consider Flow Path - Fresh air flowing into a building that is opened before the attack lines are positioned and ready to enter can cause the fire to grow rapidly. Rapid fire growth works against three of our biggest strategic priorities; rescue, confinement, and extinguishment (makes it much more difficult).

FIRE CONTROL CONSIDERATIONS:

The overall objective of the assigned company is to size up the fire behavior/conditions, locate the fire, isolate the Flow Path, cool from a safe distance, and extinguish. Rescue and salvage are added in as required by the incident. (SLICE-RS)

- A fire control crew must coordinate their entry with the forcible entry, ventilation, and other companies operating on the fire ground.
    - Have a plan for fire control and **communicate that plan; this is your Initial Incident Action Plan**. The IAP states what actions will be taken to mitigate the problem(s) and will utilize the Task, Location, Objective (TLO) format. It is critical all assigned companies know the task(s), the location of said task(s), and what objective(s) need to be accomplished. Specifically regarding fire control, the plan should include flow path considerations.

FIRE CONTROL GROUP PROTOCOLS (multiple companies):

- Additional companies assigned to the "FIRE CONTROL" group shall coordinate with the officer leading the group and determine where and what sized additional (2nd) line to stretch if not already done.
- The officer assigned to lead the group may choose to pass the management of the group to the second officer with IC coordination. This may be beneficial when the 1st officer is committed at the task level.
- Typical responsibilities of supporting companies:
    - Assist in any way the advancement of the 1st line to the seat of the fire.
    - Stretch the 2nd line into a position to intervene or assist the 1st line immediately. *This doesn't always have to be physically right behind the first line, but it also will rarely mean being outside the building.*
    - Support fire control with a 2nd line if the 1st is being overpowered.
    - Account for door control and manage the flow path.
    - Place a box light inside the entry point on strobe.
    - **Continually evaluate what is going on above, below, and behind the 1st crew. Ensure attic / basement conditions are being monitored.**

ATTIC FIRES

Attic Fire Control Considerations:

- As soon as staffing allows, perform recon of the interior to check involvement and to confirm that the attic fire is not the result of a contents fire that has extended into the attic.
- Control utilities early – a lot of the building's systems are in the attic.

Attic Fire Ventilation Considerations:

- **Vertical –** Attic fires are commonly ventilation-limited fires; closely time or limit vertical ventilation until water is in the attic. Keeping the lid intact improves the ability to extinguish an attic fire.
    - Can limit horizontal spread. Especially useful on occupancies with multiple occupancies and a common attic space (strip malls, apartments, VA DOM).
- **PPV/PPA:**
    - Treat the living area(s) as an exposure by pressurizing that area. Exhaust only when necessary to clear smoke from the living areas. **Use with caution.**

Attic Fire Control Techniques:

Interior:

- Small ceiling openings are generally all that are necessary to allow a hose stream to control the attic fire. Consider using a wide-angle nozzle pattern.
    - Consider a piercing nozzle (approx. 6"-12" penetration). The Impact piercing nozzle is particularly effective in homes with lath-and-plaster ceilings.
- This option is great for gas cooling, but cooling surfaces will be limited. You will have to move throughout the structure to ensure extinguishment.

Eave/Bird Blocks:

- Apply a straight stream through the eaves by using a hook to remove the eave soffits or the bird blocks. As a last resort direct your stream through the bird block screen.
- You will have to move laterally to achieve surface cooling between the rafter bays.

Attic Fire Control Techniques Continued:

Gable Ends:

- Fire control from both gable ends may be necessary to reach the entire attic. Rafters run perpendicular to your stream which can limit the reach for surface cooling.
    - Garage or carport access may provide access to the home's entire attic space.
- Gable end operations from ladders can be extremely dangerous.
    - Consider nozzle back-pressure, anchoring the nozzle pistol grip on a ladder rung and decreasing the psi at the pump panel to minimize the risk.
- Considerations for Gable Operations:
    - Place the ladder towards the bottom of the cutting area with a shallow angle (rescue angle) and make the cut above your head. Ensure the ladder is secure and all PPE is properly donned.
    - Place the ladder to the side of the cutting area and use either a square or triangle cut. Utilize the truck belt to allow better movement while working from the ladder. Use caution not to "bind" yourself when cutting towards you.
    - Utilize the sawzall rather than the chainsaw. This offers versatility, is lighter, could be safer, and may accomplish the objective as fast as a chainsaw.
- PPV/PPA is ABSOLUTLEY CONTRAINDICATED **while** a firefighter is **on** the ladder cutting the **Gable End!**
    - **OK after firefighters are out of the exhaust opening.**

BASEMENT FIRES – Ensure personnel are not operating in the flow path.

Basement Fire Control Considerations:

- Basements are considered a hazard and should be identified during the initial 360 and announced during the Follow Up Radio Report. The initial IC should take note of the:
    - Basement type
        - Walkout/Daylight – Exterior doorway access (most common in our area)
        - Lookout – Exterior windows are above grade
        - Window Wells – Exterior windows are below grade
    - Is it finished or unfinished?
    - What are the contents and does it have utilities?
    - What is the fire location?
    - Ventilation- Commonly ventilation limited, increased ventilation leads to quicker collapse. Consider the impact of basement openings to the flow path on the first floor.
- Assess and improve access /egress options. Clear window bars and restrictions like bushes and fences around window wells.

Basement Fire Control Techniques:

Exterior/Transitional Fire Control: (Should be considered the primary control option)

- **We will not operate over an involved unfinished basement until it has been extinguished and thoroughly inspected by crews below.** The exception to this is for a known/confirmed upper floor rescue in which an adequate size-up and risk factors were considered. Studies show regardless of the construction type, unfinished basements have collapse times less than or equal to fire department response times.
- If the interior is unknown (finished or unfinished) we should only be exterior until the fire is controlled.
- When possible, it is best to fight the fire on its own level.
- Consider the use of foam for additional extinguishment capabilities; consult with fire investigator(s) if needed.

Interior Fire Control: (Used only when the basement is finished and exterior/transitional fire control is not possible)

- Floor sag, sounding, and Thermal Imager readings are poor indicators of collapse. Inspection hole(s) may be the best option if the flooring system cannot be inspected from below.
- Piercing nozzles and combination nozzles operating in a fog pattern are the most effective topside options.
- Do not operate in the exhaust side of the flow path.
- Radio communications may be poor while operating within basements; consider using Medford Tac Direct.

GARAGE FIRES

These protocols are based on a fire that hasn't gained too significant of a hold of the living spaces. This is subjective, but if it has, it is more of a traditional structure fire that just happens to involve the garage too.

Example 1: Moderate to heavy volume of smoke out of the front man-door.

- **Interior line is stretched** to protect occupants, searching firefighters, and living spaces not yet involved in fire.
- Decide whether to simultaneously stretch a line to transitionally attack the garage or attack from the interior back to the garage.
- **(Optional) Transition line is stretched** to garage for a quick knock down. Select a hose line with enough GPM to ensure knockdown.
- If the garage door is still intact keep any openings small to avoid feeding the fire a large volume of fresh oxygen (control the flow path).
- **Aggressive venting:**
    1. Vertically ventilate to cut off attic extension over the home -**OR**-
    2. Utilize a fan to push the interior smoke back towards the garage or out of the back door -**OR**-
    3. Both.
- Cautiously deploy interior companies without reliable knockdown.
- If possible, deploy hose lines to the corners to allow adequate runoff of the driveway

Example 2: No or very light volume of smoke from the front man-door.

- **Transition line is stretched** to garage for a quick knockdown of the garage. Select a hose line with enough GPM to ensure knockdown.
    - If the garage door is still intact keep any openings small to avoid feeding the fire a large volume of fresh oxygen (control the flow path).
    - Stretch an additional 1 ¾" line to the interior to make sure the interior man door holds and to protect interior crews.

      First Officer: make your way to the interior man door and make sure it is closed and holding. Quickly search the interior portions of the home to ensure it is evacuated.
- **Aggressive venting:**
    1. Vertically ventilate to cut off attic extension over the home -**OR**-
    2. Place a fan to keep the smoke and/or fire out of the living areas; these areas are considered exposures -**OR**-
    3. Both.

WIND DRIVEN

- Personnel shall use exterior and interior indicators when determining if dangerous wind driven structure fire conditions exist. These include:
  - Pulsing fire/smoke from upwind windows
  - Slamming interior and exterior doors
  - Interior "*tea kettling*" seen on thermal imagers
  - "*Blowtorch*" type horizontal fire behavior
- Consider a **DEFENSIVE STRATEGY** in high winds if:
  - Several rooms are involved
  - Active fire throughout the attic
  - All occupants are out, or the rescue profile is low
  - Structural integrity is compromised
  - Flow paths cannot be quickly controlled
- Alternate fire ground tactics include:
  - Consider upwind entry
  - Transitional attack
  - **Control wind and flow path by closing doors and windows through any improvised means (salvage covers, plywood, plastic, etc.)**

STRUCTURE FIRE – OVERHAUL

KEY CONSIDERATIONS:

- It has been scientifically proven that there is NO correlation between the CO reading and the quantity of other highly toxic molecules found in the atmosphere after a fire.
- Only significant cooling (45-60 minutes) reduces the amount of ultra-fine particulate production enough to allow for SCBA removal.
- Air Purifying Respirators (APR's) only protect from the specific particles they are designed for. **These are not substitutes for a SCBA.**
- **Avoid holding the first-in crews through the overhaul and monitoring phases of extended incidents to reduce fatigue related injuries and minimize exposure to toxins. Consider calling in additional overhaul and standby companies.**
- **SCBA use is the Gold-Standard for respiratory protection. Extended use is optimal and encouraged while on-scene.**

PROTOCOL:

- For the purpose of this protocol, the "*OVERHAUL PERIOD*" is defined as the period beginning after complete knockdown of the fire has been achieved.
- The IC, Safety Officer (ISO) and the On Call Investigator (if assigned) will develop an ***OVERHAUL PLAN*** after complete knockdown has been achieved.
- The Overhaul Plan will be based upon the following:
    - Maintaining area of origin for investigators
    - Structural stability
    - Structure type and contents
    - Amount and location of hot spots
    - Ability to safely remove contents
    - Availability of relief crews
    - Minimizing exposure and risk
- The IC will designate the **overhaul period.** The IC will request a **1 hour timer from ECSO.**
    - The overhaul period is a **MINIMUM of 1 hour after knock down AND** will continue for **at least 1 hour BEYOND last smoke seen**.
        - **During this time, SCBA use inside the HOT ZONE is required**. The Hot zone is defined as the area which sustained any fire involvement and damage**. In many cases this will be on the exterior of the structure too.**
- This applies to all personnel, **even investigators.** This duration can be adjusted by the IC depending on the scope and severity of the incident. Ventilation and remote water application can make a significant impact on the amount of time required prior to doffing SCBA.

Standard Communication Form / Tactical Worksheet

October 11, 2018

Structure Fire Arrival Report

Building/Area Description: (Call by name if applicable)
Size: Small Medium Large Mega
Height: 1 2 3 4 5
Occupancy Type: _____
Residential Apt. Building / Complex Strip Mall Commercial Big Box

Problem Description:
Nothing/Light Smoke – Investigating (*go to Resource Determination below*)
Working Fire Defensive Fire Conditions
Location of the Problem: _____

Operational Mode/Strategy: Offensive Defensive

Initial Incident Action Plan: (if known, if not address in Follow-Up Report)

- *Task*: Stretch Extended Line Transitional Rescue Defensive
- *Location*: _____
- *Objectives*: Primary Search Fire Control Exposure Protection

Resource Determination:
Cancel Reduce Code 1/Stage Greater Alarm(s)

Assume & Name Command: _____

Follow-Up Radio Report

Results of the 360:
Completed Not Completed (Why?)

Stories from Charlie Side (if different)

Hazards Present:
Power Lines Utilities Animals MJ Grow Solar
Basement (what type)? Window Well Look-out Walk-Out

Water Supply Established?
Yes No

Designate the Alpha side

Any Changes to IAP?
Yes No

Announce Accountability Point if not the first due engine
Alpha Bravo Charlie Delta

Legend

T – Task
L – Location
O – Objective

P/S – Primary Search
F/C – Fire Control
L/C – Loss Control
O/D – On Deck

Unit _____
T: _____
L: _____
O: P/S F/C L/C O/D

Unit _____
T: _____
L: _____
O: P/S F/C L/C O/D

Unit _____
T: _____
L: _____
O: P/S F/C L/C O/D

Unit _____
T: _____
L: _____
O: P/S F/C L/C O/D

Chief_____
T: _____
L: _____
O: P/S F/C L/C O/D

Standard Communication Form / Tactical Worksheet

October 11, 2018

Wildland Arrival Report

Area Description:
Size: Use descriptors in acreage (1/10, 1/4, 1/2, 3/4, 1 acre, etc.)
Flame Length: Given in feet; use range if necessary (2-4 feet)

Problem Description (report what is pertinent):
Fuel Type: What's burning? (Grass, Brush, Blackberries, Timber)
Topography: Flat or on a slope? (Bottom, Middle, Top third of slope)
Wind Speed and/or Direction: Wind driven or Backing fire?
Exposure(s) threats: How many? Homes or other natural resources?
Hazards: Power Lines Utilities Animals MJ Grow Solar

Operational Mode/Strategy: Direct Indirect

Initial Incident Action Plan:
Direct: Pump and Roll Progressive Hose Lay Fire Line Construction

Indirect: Exposure Protection Fire Line Construction

Resource Determination:
Cancel Reduce Code 1/Stage Greater Alarm(s)

Assume & Name Working Command: _____

Switch to RV Tac 3 for the Command Frequency

MVC Arrival Report

Description:
Number of vehicles and patients, if known

Problem Description:
Position of the vehicle(s):
Orientation: Right Side Up Upside down On its side Split Scene
Damage: Minor Moderate Significant

Initial Incident Action Plan:
Patient count and condition Extrication time initiation

Resource Determination:
Cancel BC/Mercy Additional Engines/Ambulances

Assume & Name Command: _____

TAILBOARD AFTER ACTION REVIEWS

KEY CONSIDERATIONS:

- Battalion Chiefs…Contact your training department to schedule a formal review.
- This protocol doesn't address the requirements of a formal review; see policy for that.

CONSIDERATIONS:

1. A good review is one that actually occurs.
2. Place your crew back into service and meet while the event is fresh.
3. Ask questions and listen. Look for opportunities to improve. Stay focused on improvement. Be critical of *the performance* ***not*** *the performer.* Please share what you have learned with others.

TAILBOARD AAR:

Focus on These Questions:

1. **WHAT WAS PLANNED?**
   - What was the objectives(s)
   - What barriers did we expect upfront?

2. **WHAT REALLY HAPPENED?**
   - Ask questions to understand why and practice active listening.
   - Compare against protocol and procedures.

3. **WHY DID IT HAPPEN?**
   - Look for root cause, not just proximate cause.
   - Avoid looking for just what went poorly. It is often much harder to determine why something went right. Keep the review balanced but still honest.
   - Remember we want to replicate our successes in the future just as much as we want to avoid mistakes.

4. **WHAT CAN WE DO BETTER NEXT TIME?**
   - Avoid normalization of deviance.
   - Remember no firefighter, crew or department is perfect.
   - Should policy, protocol or procedures be changed if they were not followed or should performance change next time?
   - Individuals may disagree on which AAR takeaways are the highest priority and that is OK.

NOTE: Significant lessons and/or findings should be documented and forwarded through the Chain of Command in an effort to share our experiences and learn from them.

TECH. RESCUE – CONFINED SPACE

KEY CONSIDERATIONS: TRT PLAN ALSO AVAILABLE

- Ashland Fire & Rescue maintains the regional Confined Space rescue resources.
- Breaking the horizontal or vertical plane with any part of your body constitutes entry.
- Get a Confined Space permit filled out ASAP. The BC vehicles carry them.
- Try to reclassify the space if possible.
- Many Confined Spaces are also HAZMAT scenes.
- Documentation is key. Get a response plan and paperwork from the Battalion Chief.

A Confined Space:

- Is large enough for an employee to enter fully and perform work **AND**
- Is NOT designed for continuous occupancy **AND**
- Has a limited or restricted means of entry and exit.

A **PERMIT-REQUIRED** Confined Space has **ONE or MORE** of the following:

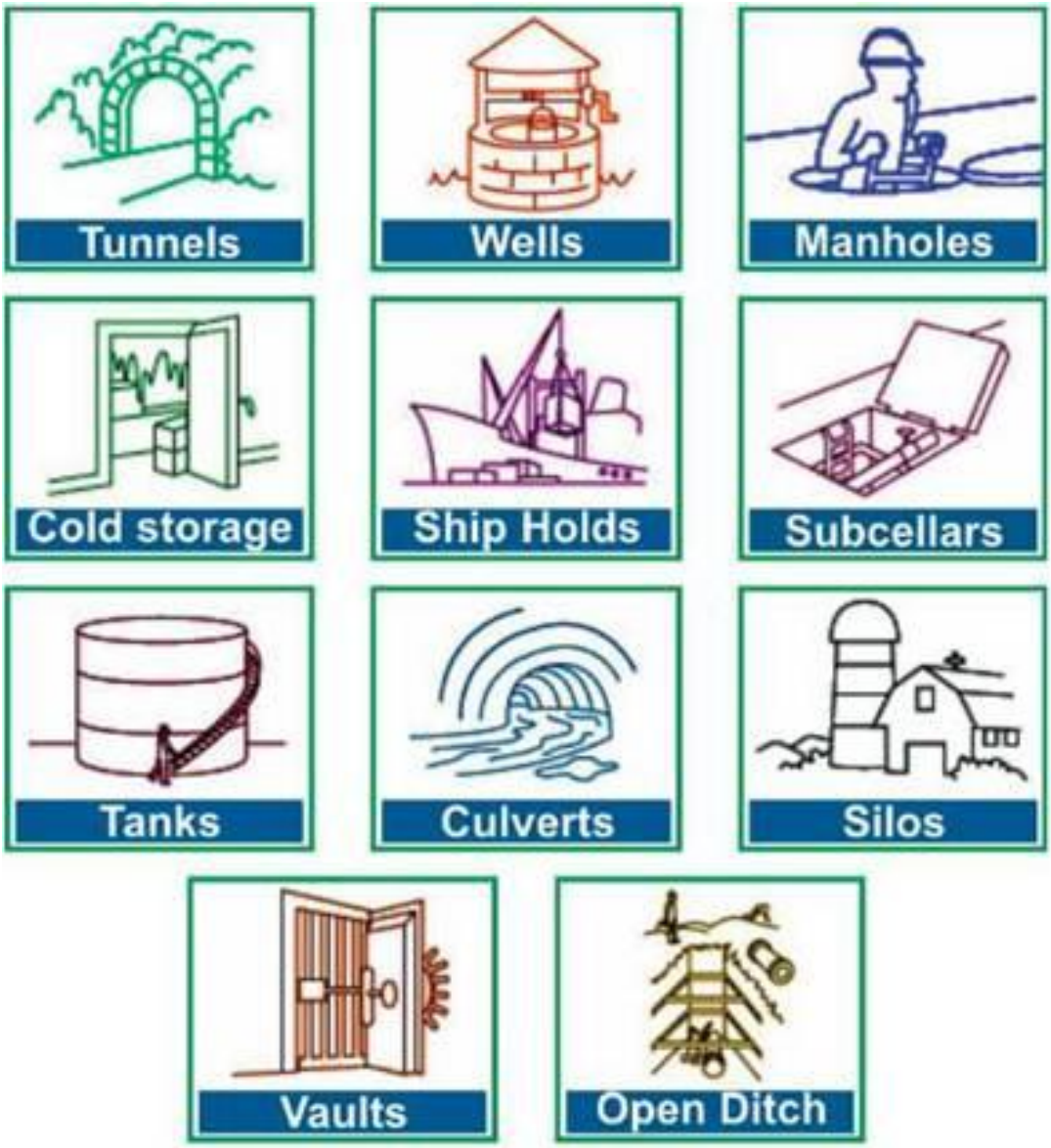
- Contains or has the potential to contain a hazardous atmosphere.
- Contains material with potential to engulf the entrant.
- Has internal configuration that might cause someone to become trapped or asphyxiate by inwardly sloping walls or by a floor that slopes or tapers.
- Contains any other recognized safety or health issue.

PROTOCOL:

1. Provide Arrival Report and assume command.
2. Identify the exact location of the Confined Space and determine:
   a. What is the space used for?
   b. Is there mechanical or electrical systems in the space?
   c. How many victims do we have and what is their status?
   d. Potential access points.
   e. Any easy solutions?
   f. Request specialty equipment from Ashland Fire & Rescue and make TRT / HAZMAT call-out if necessary.
3. **Initial Actions:**
   - **Position all apparatus at least 100 feet from the rescue location.**
   - **Locate and keep handy a facility expert.**
   - **Locate on-site Confined Space permit if one exists.**
   - **Start Lock-Out / Tag-Out. See Lock Out/Tag Out protocol.**
   - **If safe to do so, begin remote air monitoring inside the space. Improve air quality as needed.**
4. **Take any possible steps to reclassify the space whenever possible.**

5. **Initiate rescue operations:**
   a. Confirm mode (rescue or recovery).
   b. Complete entry permit.
   c. Establish a safety officer.
   d. Complete Lock Out/Tag Out.
   e. Verify rescue effort is within equipment and personnel capability.
   f. Request specialty equipment ASAP **(see Public Works protocol)**.
   g. **ONLY certified and properly equipped members of a rescue team will enter the space.**
   h. Monitor air throughout the incident.
   i. Perform ventilation of space.
   j. Perform rescue or recovery.

6. **FIRST ARRIVING Confined Space Technician report to IC and assume RESCUE GROUP LEADER.**



TECH. RESCUE – ROPE RESCUE

KEY CONSIDERATIONS: TRT PLAN ALSO AVAILABLE

- TRT should be considered for all night or remote operations in the vertical environment.
- Establish an "Edge" rescuer / safety officer.
- Define the "edge" and "departure point" options early.
- Recon and rig anchors early.
- Determine **RESCUE vs. RECOVERY.**

PROTOCOL:

Engine companies are authorized to perform low-angle rescues. Consider TRT as outlined below.

- **Exception: A victim is unsecured and is going to fall before the TRT can arrive OR when a victim is injured so severely that additional time will mean death: properly equipped and trained engine company members may intervene.**

First Arriving Company Officer:

1. Assume command and request additional resources.
2. Survey the incident and identify:
   - How many victims do we have and what is their status?
   - Potential access points.
   - Any easy solutions?
   - Request specialty equipment and make TRT call-out if necessary.
3. **Recommend TRT activation for:**
   - During night time rope operations;
   - During lengthy or complex low angle operations;
   - High Angle rope rescue;
   - Rope rescue operations in severe weather;
   - Rope rescue operations in hazardous facilities / environments;
   - Rope rescue operations involving Trench, Collapse, ice, cave/tunnel, animals or Confined Space.
4. **ACTIVATING THE TRT:** (the TRT Duty Officer is BC3, they are available for consult, but don't delay requesting the team when you think you **MAY** need them).
   - Responding BC (or first due officer if responding without the BC) may activate the TRT via ECSO, **SAY: ACTIVATE THE TRT.**
   - Provide a specific location for the members to respond / report to.
   - Provide a brief description of the reason for the request so team members can begin to prepare necessary equipment.
5. Interview witnesses.
6. Establish a safe perimeter and mark the edge and deny access past it.
7. Establish communications with victim(s).
8. Initiate rescue operations.
9. **FIRST ARRIVING TRT member report to IC and will likely assume RESCUE GROUP LEADER.**

TECH. RESCUE – TRENCH RESCUE

KEY CONSIDERATIONS: TRT PLAN ALSO AVAILABLE

- **Where death of the victim is certain, no fire personnel will be allowed into the excavation prior to a change in mode and until the excavation is fully shored.**
- Ashland Fire maintains the regional Trench Rescue resources
- Notify HAZMAT Duty Officer (BC2) and the TRT Duty Officer (BC3).

PROTOCOL:

1. Complete Arrival Report and assume command.
2. Identify the exact location of the trench/ excavation and determine:
   a. How many victims do we have and what is their status?
   b. Potential access points.
   c. Any easy solutions?
   d. Consult with Battalion 1, TRT / HAZMAT duty officers.
3. **Initial Actions:**
   - **Position all apparatus at least 200 feet from rescue location.**
   - **Shut off all heavy equipment in the area to reduce vibrations.**
   - **Establish a perimeter and deny entry. Move other employees / rescuers back and provide them support.**
   - **If safe to do so, begin air monitoring inside the excavation to improve air quality as needed.**
   - **Order an emergency utility locate through ECSO.**
4. Initiate rescue operations:
   - Establish safety officer
   - Verify rescue effort is within equipment and personnel capability.
   - Ensure rescue group has Plan 'A' and Plan 'B' and that they are known.
   - Request specialty equipment ASAP. **(see public works protocol)**.
5. **FIRST ARRIVING Trench Rescue Technician report to IC and will likely assume RESCUE GROUP LEADER.**

TECH. RESCUE – WATER RESCUE

KEY CONSIDERATIONS: TRT PLAN ALSO AVAILABLE

- The first arriving Company Officer will assume Incident Command and prepare for Unified Command with Law Enforcement and a TRT representative (if applicable).
- First Responders will not enter the water without technical water rescue training and full water rescue technician protective attire.
- Protective Equipment for **First Responders:** Normal station uniform with donned type III/V PFD with whistle, radio, and a hand light; water helmet preferred.
- Protective Equipment for **Water Rescue Technician**: Type V PFD with whistle, knife, and water rescue helmet, radio, protective water footwear, and garment appropriate for ambient outside and water temperature.
- NO TURNOUTS within 10 feet of the water!
- Some of these requirements may be in effect during other incidents - MVC, Disaster response, flood, etc.
- First Responders will only assume shore-based rescue attempts and support technical water rescue operations unless fully equipped and presented with a situation that has a chance for success. **Know your crew's limitations….**

CONSIDERATIONS:

- All personnel within 10 feet of the water will wear a PFD and rescue helmet.
- **No Turnouts within 10 feet of the water!**
- Assign multiple Down Stream safeties. Safeties should be spaced out downstream with each member having a throw bag. This person needs a whistle, radio, and hand light.
- Assign an upstream spotter to warn responders of hazards and warn other river users. This person needs a whistle, radio, and hand light.
- Do not tie a rope around a rescuer. A tethered rescuer must have a quick release capability.
- Initiate a backup plan simultaneously with plan A.
- Once contact is made with victims, never release them until the rescue is completed.
- Use the lowest risk rescue option available and **KEEP IT SIMPLE.**
- **See Decontamination of Personnel protocol (if needed).**

PROTOCOL:

1. Complete an incident size up and provide an Arrival Report.
2. Identify and retain witnesses at the scene.
3. Establish victim(s) description and situation.
4. Determine and mark the victim's point last seen.
5. Determine victim status (Rescue or Recovery).
6. Over the radio, declare the operational mode: Rescue or Recovery.
7. Request ECSO to initiate an incident timer if not already done.

8. Determine the best access to the incident scene for other responders; stage arriving units.
9. Identify resource needs; dispatch additional companies or the TRT.
10. Establish Command and prepare for Unified Command with Law Enforcement.
11. Prepare an incident action plan including a back-up rescue plan(s) with assistance from the TRT (if deployed).
12. Consider the need for specialized incident management and support (i.e. JCSO Search & Rescue, air resources, etc.).
13. Establish and maintain verbal contact with the victim(s).
14. Provide floatation to the victim(s).
15. Operations:
    - Self-rescue
    - Reach
    - Throw
    - Row (boat based rescue)
    - Go (swim rescue)
    - Tow (tethered rescue)
    - Helo (helicopter rescue)

UTILIZATION OF PUBLIC WORKS

KEY CONSIDERATIONS:

- Public works has extremely limited ability to operate on private property.
- Billing may be an issue – IC and Public Works supervisor need to discuss – then document!
- Contact ECSO to be connected with the appropriate supervisor.

PROTOCOL:

1. Public Works will only operate on **private property** when an "imminent threat" to life exists.
2. In general they will operate only on the public roads and property they normally maintain.
3. Central Point, Eagle Point, Gold Hill, Jackson County, and Medford all have their own PW departments. Some have mutual aid agreements with one-another including ODOT.
4. Please notify if damage to street lights, bridges, road systems, signs, etc. has occurred.
5. Public works primary focus is on protecting waterways from HAZMAT and will not clean up hazardous materials.

VEHICLE FIRES

KEY CONSIDERATIONS:

- Park uphill and upwind whenever possible.
- Provide control measures to prevent the vehicle from rolling.
- Approach from the corners.
- Apply water from a distance to start, no need to walk up right away in many cases.
- What is in the vehicle? Be ready for anything.
- Always be thinking about struts (bumpers, hoods, trunks, seats and elsewhere)
- Large vehicles, RV's and semi-trucks – think about cargo-load and water supply needs – order additional companies or a tender early.

PROTOCOL:

1. While enroute consider checking your MDC / Smart Phone App for vehicle info (fuel tank location, battery location, other hazards, etc.) when vehicle info is available.
2. Request law for traffic. Consider ODOT Quick Response crew.
3. Provide an Arrival Report and Follow-Up Radio Report.
4. **Unless you have a life at risk or an immediate exposure problem you can generally slow-down and approach cautiously. Well involved vehicles generally offer little to save.**
5. Be ready for the vehicle to roll, chock it when safely possible.
6. Apply water from a distance to cool the vehicle before approaching.
7. Shut off the vehicle when possible.
8. Complete extinguishment.
9. Complete Fire Investigation or call for On Call Investigator.

Hazards to Consider:

- Exploding tires
- Running flammable liquids fire
- Alternative fuel sources (LP, LNG, Ethanol, Electric) **(look for shutoffs)**
- Exotic metals (white smoke and white flames) (generally violent reactions when water is applied)
- Cargo-load

Tactics to Consider:

- Use of piercing nozzles
- Use of rotary saws or hydraulic tools for engine/trunk access
- Open the trunk / passenger compartment. (Check for life, salvage opportunities, fire extension)
- Foam

VENTILATION – POSITIVE PRESSURE ATTACK

KEY CONSIDERATIONS:

- Firefighters ALWAYS **follow** clean air. NEVER start PPA while FF's are in the building already.
- Fire and Smoke are going to exhaust under great pressure and travel farther than normal. Protect exposures and protect yourself. Must have attack corridor integrity – too many openings may limit PPA's effectiveness. Consider vertical vent.
- Wind over 15mph into the exhaust will limit PPA. Good flow-path must be available.
- Exhaust point must be made as close as possible to the fire.
- **ABSOLUTE CONTRAINDICATIONS**
  - Victims between the fire and the exhaust opening.
  - Backdraft conditions or flammable dust/Vapors
  - VEIS operations are occurring

PROTOCOL:

Positional Considerations (May adjust as necessary)

	Officer	Engineer/2nd FF	Firefighter(s)
1	• Perform a ventilation size-up • Determines / communicates fire control crew's entrance (Vent Point)	• Places fan at entrance. • Starts fan. • Leaves the fan ***"turned out".***	• Stretch Attack line • Confirm the Flow-path including Exhaust Point
2	Create/confirm adequate exhaust point: • As close to the fire as possible • Aim for 2-3 X larger than Vent Point (should match the energy produced by the fire). • Windows better than doors • Chalk inward swinging doors	Maintain awareness of exhaust, flow-path, and overall operation. • Make a point to get a visual or a report on vent and exhaust points periodically throughout the operation.	• Entry Crew mask up.
3	**Fan "*Turned In*" upon officer's direction.** Wait up to 90 seconds for conditions to stabilize temps to decrease and visibility to increase. Increased smoke that doesn't get better indicates a poor attack corridor (i.e. inadequate exhaust, closed interior door(s), etc. **You may be IN the exhaust point.**)		
4	• Begin advance as corridor clears. • Avoid new openings on the way.		
5	Continually monitor conditions, consider changing ventilation plan when: • Smoke is not moving towards exhaust opening		
6	Fire is extinguished and overhaul has begun- strongly consider shutting fan down. • Concern of smoke spread into non-living spaces or pressure masking smoke from hot spots.		

VENTILATION – POSITIVE PRESSURE VENTILATION

KEY CONSIDERATIONS:

- This protocol applies to post fire knockdown, rescue, salvage, and exposure protection**. If there is an active fire in the space you are pressuring you are doing a PPA. See that Protocol.**
- CO is an issue with PPV. Monitor it and consider electric fans.
- Fire in the attic, walls, floors, or other voids – apply only with extreme caution and coordination.
- Coordination between fire control and ventilation teams is critical.

PROTOCOL:

1. Perform a ventilation size-up.
2. Determine the fire control avenue and use it as the vent point if possible.
3. Determine the best location to exhaust air from the structure based on fire control's needs.
4. Start fan pointed away from air vent point.
5. Coordinate with interior crews to ensure they are ready for PPV.
6. Consider a ventilation member at the exhaust location to make the opening and monitor its effectiveness. Particularly important in Multi-family/Large structures.
7. Turn fan in and adjust cone of air to seal opening into area to be ventilated.
8. Continue to monitor for unexpected changes in fire conditions (i.e. attic fire).
9. Control interior and exterior openings as needed to obtain desired results.
10. Consider multiple fan configurations to increase effectiveness.
11. Aggressive overhaul must begin as soon as possible! Consider shutting down the fan during overhaul operations as the pressure can mask the smoke from hotspots.
12. Monitor CO levels during overhaul and use exhaust tubes if needed.

Exposure Protection Considerations

Exposures can be a separate attached or detached structure as well as uninvolved rooms in a large structure.

- **Do not create any exhaust openings;** the goal is to increase the pressure enough to keep the fire from spreading into the exposure.
- Provide a protection line and consider opening any void spaces to confirm there is no extension.

VERTICAL VENT – FLAT ROOF

KEY CONSIDERATIONS:

- The roof is within the HOT ZONE. Full PPE and SCBA required.
- WE WON'T OPERATE DIRECTLY OVER FIRE ON LIGHTWEIGHT CONSTRUCTION – MOVE OVER SEVERAL RAFTER BAYS AND GIVE UP INVOLVED OR EXPOSED REAL ESTATE.
- **4'x8' hole size for residential is optimal/ 8'X8' is optimal for commercial.**
- COORDINATION IS KEY. Fire attack and vent personnel **must** be on the same page and communicating throughout the operation.
- Remember to get the relief needed, expand or add more holes if necessary.
- If cutting defensive strip get ahead of the advancing fire enough.
    - Consider a holding hole during defensive strip to buy your crew some time. You will need it.
- IC – ensure a 2nd ladder is placed for the vent company by someone else.
- Offensively venting directly over a garage fire is extremely risky. It is preferred to only operate over the living areas of the home.
- Ensure that the building is **VENTED not just VENTING**, expand or add another hole if necessary.

PROTOCOL:

Positional Considerations (May adjust as necessary)

REQUIRED EQUIPMENT		
OFFICER	**ENGINEER**	**FIREFIGHTER(S)**
• Ventilation size-up. • Thermal Imager • Rubbish Hook	• Throw 1st ladder • 2nd hook • 2nd saw (if staffed W/3)	• 1st saw • 2nd FF has the 2nd saw if you are staffed with 4.
ON THE ROOF		
• Evaluate inspection hole • Physically communicate rafter direction to crew • Sound the crew OUT & BACK • ID where you want the vent hole • Clear Ceiling • Evaluate and Call for expansion if necessary. • Lead crew off the roof • Advise Command when you are on/off the roof	• Clear smoke holes • Coordinate with saw 1 to cut hole • Get hook and assist with ceiling clearing	• Cut inspection hole • Cut smoke holes • Cut vent hole(s) • Get hook and assist in clearing if needed

VERTICAL VENT – PEAKED ROOF

KEY CONSIDERATIONS:

- The roof is within the HOT ZONE. Full PPE and SCBA required.
- WE WON'T OPERATE DIRECTLY OVER FIRE ON LIGHTWEIGHT CONSTRUCTION – MOVE OVER SEVERAL RAFTER BAYS.
- Offensively venting directly over a garage fire is extremely risky. It is preferred to only operate over the living areas of the home.
- **At least 4'x8' hole size is optimal for residential / At least 8'X8' for commercial is best.**
- COORDINATION IS KEY. Fire control and vent personnel **must** be on the same page and communicating throughout the evolution.
- Ensure the building is **VENTED not just VENTING**, expand or add another hole if necessary.

PROTOCOL:

Positional Considerations (May adjust as necessary)

LOW PITCH OPERATION (LOW 8)		
REQUIRED EQUIPMENT		
OFFICER	**ENGINEER**	**FIREFIGHTER(S)**
• Ventilation size Up • Thermal Imager • Rubbish Hook	• Throw 1st ladder • Throw 2nd ladder • 2nd hook to top of ladder • 2nd saw to base of ladder or roof	• 1st saw • 2nd FF has the 2nd Hook and 2nd Saw if you are staffed with 4.
ROLES / ACTIONS ON THE ROOF		

• Sound the Crew OUT & BACK
• ID where you want the Hole
  ○ Step Away
  ○ SOUND MORE!
  ○ COMMUNICATE
• Clear Ceiling
• Evaluate and Call for expansion if necessary.
• Advise Command when you are on/off the roof
	• Assist if called up by officer
	• Have your SCBA ready
		• Cut the hole.
		• Get second hook from ladder and assist with clearing if necessary.
		• Expand if required.

VERTICAL VENT – PEAKED ROOF

STEEP PITCH OPERATION (HIGH 5) *Positional Considerations (May adjust as necessary)*		
REQUIRED EQUIPMENT		
OFFICER	**ENGINEER**	**FIREFIGHTER(S)**
• Vent profile & building SIZE-UP • Thermal Imager • Rubbish Hook • 2nd up the ladder	• Throw 1st ladder • Throw roofer • Throw 2nd (egress ladder) • 2nd hook to top of ladder • 2nd saw to base of ladder or roof	• 1st saw and 1st up. • 2nd FF has the 2nd Hook and 2nd Saw if you are staffed with 4.
ROLES / ACTIONS ON THE ROOF		
• Bring up Saw • Tool Pass • Set the hook • Tool Pass • COMMUNICATE • Evaluate the opening – is it vented or venting? • Advise Command when you are on/off the roof	• Assist if called up by officer • Have your SCBA ready	• Bring up hook and sound • Tool Pass • Cut Hole • Tool Pass • Clear Ceiling • Expand if directed to do so.

WILDLAND – COMMAND

KEY CONSIDERATIONS:
- Be flexible, Wildland is very dynamic. ODF response varies greatly across our region.
- Radio scanning is highly recommended. Learn how to build a scan list on your portable.

PROTOCOL:

GENERAL COMMUNICATION:

- Initial units are dispatched by each agencies dispatch center on their dispatch frequency and report their arrival on their respective agencies' frequency. If both MFR and D3 are responding switch to the appropriate channel (host agency).
- Resource requests will normally be made on the agencies' dispatch frequency (or by cell phone) throughout the incident
- Consider monitoring the other agencies' frequency and / or RV TAC 3 during response. Protection Supervisors and Chief Officers are encouraged to communicate by cell when practical.
- Good radio discipline is essential, radio traffic should be brief and to the point.

COMMAND MODES:

- Incident command that is mobile will be described as "***WORKING COMMAND***". This mode is a temporary situation to provide an opportunity for the Protection Supervisors and first responding Chief Officers to establish the tactical direction for initial resources.
- For incidents where the fire is not quickly controlled, a "***FIXED INCIDENT COMMAND POST***" (ICP) shall be established as soon as possible by either on scene supervisors or subsequent supervisors assuming Command. This ICP will normally be a ***UNIFIED COMMAND*** with ODF and local structural agency members present as soon as possible. Once a fixed ICP is established the location shall be announced; assume a working command is in place until the ICP is established and announced.

PROCEDURE:

FIRST DISCIPLINE ON SCENE:

- Provide an Arrival Report to their dispatch center
- Assume Command (Typically "Working Command")
- Request all responding resources switch to RV TAC 3 upon arrival

FIRST UNIT FROM THE SECOND DISCIPLINE ON SCENE:

- Provide an Arrival Report to their dispatch center
- Communicates with the established IC for direction/ information on RV TAC 3.
- Coordinate fire control and remain in contact at all times
- Request all responding resources switch to RV TAC 3 upon arrival

WILDLAND – COMMAND

SUPERVISOR ARRIVAL:

- The first supervisors (Chiefs and Protection Supervisors) from both disciplines will normally take an aggressive forward position to effectively establish the tactical objectives. (Working Command)
- The second supervisors (Chiefs and Protection Supervisors or Assistant District Forester) from both disciplines will normally establish a fixed ICP and assume command from the Working Command. Once both disciplines are represented, establish a unified command as needed.

WILDLAND OR STRUCTURAL EMPHASIS IN SHARED JURISDICTIONS:

- Incidents that are primarily wildland driven will typically be led by ODF with structural agencies operating in a Branch, Division, or Group role.
- Incidents that are primarily structural fire driven will typically be led by the structural agencies with ODF operating in a Branch, Division, or Group role.

INCREASING COMPLEXITY:

- As the incident escalates in complexity and RV TAC 3 becomes congested assign tactical frequencies for Perimeter Control and Structure Protection. Consider these options:
    - Perimeter Control – RV Tac 2, Red Net, or others
    - Structural Protection – RV Tac 5 & 6, or others
- RV TAC 3 will remain as the Command Frequency
- Some structural units may be left working for perimeter control – work on the appropriate channel. Some ODF resources may be involved in structural protection – they will operate on those channels.
- Perimeter control divisions will be assigned alphabetical divisions.
    - **'A' ALPHA** usually begins on the left flank. Continue clockwise and fill in more divisions as incident grows.
- Structural protection will be given names relating to streets or geographic area.
    - Example: GLEN ECHO GROUP or LONE PINE GROUP.

WILDLAND – FIRE CONTROL

KEY CONSIDERATIONS:

- Be flexible, Wildland is very dynamic. ODF response varies greatly and is based on availability.
- Radio scanning is highly recommended. Learn how to build a scan list on your portable.
- Each tactic can transition to one of the others. Expect it and be thinking ahead.
- Maintain situational awareness and be mindful of the 18 Watch Outs and 10 Fire Orders.

PROTOCOL:

- These can be used exclusively or as a combination on scene.
- We will be working with other agencies, be heads up and aware of their tactics, capabilities, and limitations, they will have an impact on yours.
- Fuels, terrain, access, fire behavior, and resources will determine a direct versus indirect attack.

DIRECT ATTACK: Direct attack will be our most common tactic on wildland fires.

Pump and Roll:

- Mobile attack should utilize a booster line or short section of hose.
- The firefighter is responsible for knocking down the fire and spotting for the driver.
    - The driver must maintain sight of the firefighter at all times.
- Anchor, flank, and pinch will be the typical fire control plan, although knocking down the head of the fire first may be the best method for some fires.
    - This is our quickest method of fire control for a wildland fire and should be utilized as long as it is safe and reasonable to do so.
- The lead unit should not be extinguishing the fire as much as knocking it down and slowing fire spread.
    - The next unit(s) coming in should improve the wet line.

Progressive Hose Lay:

- Deploying hose packs will be our most effective way to get hose on the ground and catch a fire we cannot pump and roll.
- Hose should be deployed in the green or black based on hazards, cleanliness of the burn, and ability to get the hose deployed in a timely manner.
    - One foot in the green and one in the black is a good orientation to start with when deploying hose packs.
    - Hose deployed in the black is susceptible to getting burned. Be mindful of this and expect it to happen. Keep yourself in a safe spot.
    - Hose deployment in the green is acceptable, although it puts you in a more dangerous spot. Fuel types and expected fire behavior will dictate whether this can be accomplished or not.

Fire-line Construction:

- Digging fire-line is an effective method to stop fire by removing the fuels down to mineral soil.
- When getting water on the fire is not feasible, or containment is most appropriate, this may be the preferred method.
- It may be quicker to scratch a line around a 10x10 spot fire than deploy 200' of hose.
- Hand line width should be 1 ½ times the height of the fuels up to 2' wide.

INDIRECT ATTACK: Indirect attack may be used where resources are scarce or the risk is too great.

- Containment lines should be constructed or supported ahead of the fire.
- It is OK to allow the fire to burn out to a control line, road, or fuel break. Position accordingly and do not let it go beyond.
- Since there may be no black to serve as a safety zone, ensure escape routes and safety zones are clearly identified.
- Ensure a strong anchor point, there is time.

WILDLAND – FLAGGING

KEY CONSIDERATIONS:

- This protocol adopts the Oregon State Fire Marshal's Office (OSFM) and Oregon department of Forestry (ODF) recommended flagging during wildland incidents.

PROTOCOL:

- When operating in the wildland environment, agencies should utilize the corresponding flagging with or without the appropriate printing.

Red & **white** striped with "hazard" printing: *General Hazards*

Yellow & **black** striped with "bees" printing: *Bees*

Oranae & **black** skull & crossbones with "killer tree" printing: *Hazard Trees*

Blue with "water" printing: *Water Supply*

Hot pink with "escape route" printing: *Escape Route*

Light purple with "triaged" printing: *Triaged Structures/Homes*

White with black letters "occupied" printing: *Occupied Homes in Evacuation Areas*

White with black letters "FIRE" printing: *Provides the Direction to the Fire*

WILDLAND – OVERHAUL

KEY CONSIDERATIONS:

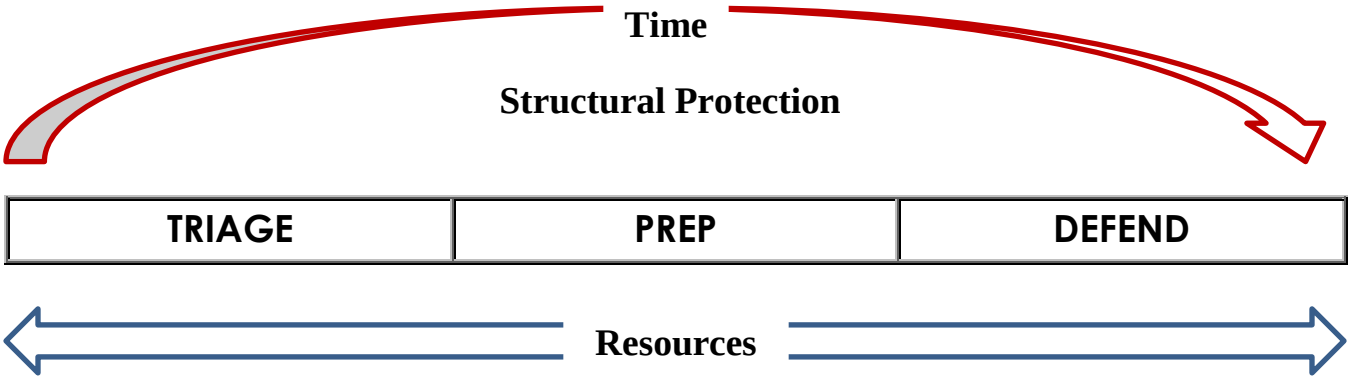
- Many structures have been lost after successfully pushing the fire front around but not following up with adequate overhaul. Embers may maintain heat for long durations in the right fuel beds.
- Thermal Imagers provide great value when seeking out hot spots.
- Many injuries occur during this phase due to exhaustion and compromised landscape; use caution.

For overhaul in the Structural Interface refer to the Wildland – Structural Protection protocol

PROTOCOL:

- The objective is to ensure the entire fire area is cold and no smokes remain.
- Protect the origin – flag off and stay away if necessary.
- Coordination with ODF for dual assessed lands is imperative; there may be resource objectives we are unaware of.
- Utilize wildland hand tools during mop up; this will ensure the water/foam penetrates the materials (leaf litter, duff, etc.) to reduce the potential for flare up and allow the water to go farther.
- Where appropriate utilize hand tools to construct a hand line to secure the edge of the fire; as a rule of thumb, the line width should be 1 ½ times the height of the fuel.
- Repair any fences or gates damaged in the suppression efforts; ensure all livestock are contained.
- Look up and down. Dig out stumps, roots, and rock piles; seek out smoldering moss, snags, or crotches in trees.
- Limited felling of trees *may* be performed in conjunction with a thorough risk assessment, approval of the IC, and capabilities of the personnel. It is preferable to use ODF contract fallers.
- Heavy equipment may be used where appropriate, considering the long term scars.
- Department hose may be left on scene for ODF use. Document on the apparatus bay board upon return to the station.
- Perform follow-up checks on the fire based on intervals established by the Battalion Chief.

WILDLAND – STRUCTURAL PROTECTION



PURPOSE

This structural protection plan is designed to provide structural resources with common expectations, procedures and terminology in order to execute efficient structural protection during wildland fire/urban interface incidents.

PROCEDURE

The components of effective structural protection are based on the integrated actions surrounding three critical actions; Structural Triage, Structural Preparation and Defensible Tactical Action. The successful implementation of these actions is based on the following critical factors: TIME, RESOURCES, and FIRE CONDITION. These factors must be strongly considered in the decision making of when and how to execute the critical structure protection actions.

I. Structural Triage

Utilization of the OSFM Structural Protection Checklist should be utilized when triaging structures with the goal of placing each structure in one of the following categories. These categories will be utilized to determine the structural prep and defensible actions given consideration of available time, resources, and fire condition.
See the table on Page 2 for categories and conditions.

WILDLAND – STRUCTURAL PROTECTION

I. Structural Triage Continued…

Defensible – Stand Alone (Low Risk) • Safety zone present • Requires little or no attention • Will require patrol or homeowner presence after fire passage	**Non-Defensible – Prep and Go (High Risk)** • No safety zone present • If time allows, rapid mitigation, apply foam or gel • Set trigger point for safe retreat • Go to nearest safety zone, return to area after fire passage
Defensible – Prep and Defend (Moderate Risk) • Safety zone present at or near structure for apparatus and firefighters • Structure has a higher probability of ignition without firefighter intervention	**Non-Defensible – Check and Go (Extreme Risk)** • No safety zone present • Inadequate time for mitigations • If time allows, ensure lives are not threatened • Set trigger point for safe retreat • Go to nearest safety zone, return to area after fire passage

I. Structure Preparation

Structural preparation is executed based on the Structural Protection Checklist and is a factor of TIME, RESOURCES, and FIRE CONDITION. If a fire front is imminent or highly likely the goal is to defend what can be saved and accomplish as much of the Structure Prep Priorities as feasibly possible. This section is intended to provide structural protection resources with a clear guideline of what structure prep objectives are expected based on the mode of operation. This is a critical component of the structure prep plan, if there are other actions not addressed in this plan it is recommended that those actions are discussed with the appropriate supervisors.
Prioritize Structural Prep Actions based on the greatest chance of savability. Complete prep actions on the structures using the following order.

1. **Low Risk- Stand Alone.** Reinforce and ensure prepped for standalone defense.
2. **Moderate Risk- Prep and Hold.** Time sensitive, these structures provide biggest gains.
3. **High Risk- Prep and Go**. Time sensitive.
4. **Extreme Risk- Check and Go**

WILDLAND – STRUCTURAL PROTECTION

Structure Prep Priorities

The following outlines the order of priority in which preparation should be conducted. Two general levels of structure prep are identified: Surface Prep and Full Prep. The three critical factors of time, resources, and fire condition will determine which level and priority should be accomplished. This determination may occur in conjunction with the Division/Group Supervisor. Depending upon these critical factors, attempt to accomplish as much as feasibly possible starting with Surface Prep priorities down through the Full Prep priorities. ***The ultimate goal with any of the following prep work is to minimize or eliminate the direct flame contact to the edge of a combustible building material.***

SURFACE PREP

Should always be completed first. Allows crews to conduct initial prep work without physically altering structures or property providing crews opportunity to conduct work if fire front is not imminent and it is unclear if fire front will affect the area.

Priority #1 **ROOF** *(critical ignition component)*

- Clean out gutters and ember traps at the vertical intersections and horizontal surfaces, remove receptive fuel beds, leaves, needles, debris and any other flammable materials on or attached to the roof.
- Flush gutters with water and plug down spouts.

Priority #2 **INTERIOR**

- Close windows.
- Turn lights on, close interior doors and unlock and shut exterior doors.

Priority #3 **EXTERIOR**

- Relocate easy to move flammable/combustible items surrounding structure (lawn furniture, toys, propane cylinders, gas cans etc.) to an area of cover or outside preparation perimeter (garage, shed, barn etc.).
- Clear decks, walkways and other areas of light receptive fuels (leaves, needles etc.). Consider base of exterior walls, decks or other areas of adjoining combustible surfaces of the structure.

WILDLAND – STRUCTURAL PROTECTION

FULL PREP

Complete Surface Prep priorities first and then determine which of the following Full Prep tasks need to be/can be completed.

Priority #4 EXTERIOR

- Remove receptive fuels adjacent to the structure 5-10 feet (fine dead fuels, leaves, grass, bark dust, firewood, etc.).
- Cover attic and basement vents (metal window screen is preferable).
- Shut off gas, LP/NG.

Priority #5 SECONDARY PRIORITIES

- Remove vegetation within 30 feet of structure scatter flat.
- Limb trees 5 to 7 feet from ground.
- Remove debris and ember traps around structure.
- Remove lawn furniture and toys- place in home if possible.
- Remove attached fences 10 feet from structure for access and removal of combustibles.
- Remove and scatter wood pile or cover to avoid ignition by ember shower.
- Move cars if possible.
- Construct handline around structure, outbuildings, or immovable fuel sources/hazards.
- Consider burn out operations.
- Consider use of sprinkler kits. Only if adequate structural prep has been obtained.
- Consider use of structure wrap.
- Consider extreme prep tactics (additional limbing or falling of trees).
- Consider egress preparation. Limbing/brushing 5 to 10 feet on either side of road/driveway.
- Consider the need for Temporary Refuge Area (TRA) and/or Safety Zone preparation.

FIRE IMMINENT

Consider when fire front is imminent and structure is categorized as defensible.

- Determine defensible action.
- Stretch hose lines.
- Ladder roof, hose to roof.
- Initiate Structural Prep Checklist if not already complete- Complete as much as possible before initiating defensible stand.
- Consider burn out operations.

WILDLAND – STRUCTURAL PROTECTION

Temporary Refuge Areas:

Although Safety Zones and viable escape routes shall always be identified, they may not be immediately available should the fire behavior increase unexpectedly. Often a Temporary Refuge Area (TRA) is more accessible in the WUI environment. A TRA will provide temporary shelter and short-term relief from an approaching wildfire without the use of a fire shelter and allow the responders to develop an alternate plan to safely survive the increased fire behavior. Examples: lee side of structure, inside of structure, large lawn or parking area, cab of apparatus, burned area.

II. Defensible Tactical Action

The following tactical actions allow firefighters combating an urban interface wildland fire to utilize common terminology and actions in order to safely and effectively defend structures.

Primary Tactical Action

Primary tactical actions are based on the triage category and level of structure prep accomplished prior to arrival of fire front. Primary tactical action may be supplemented or transition to another primary action or secondary tactical action as needed.

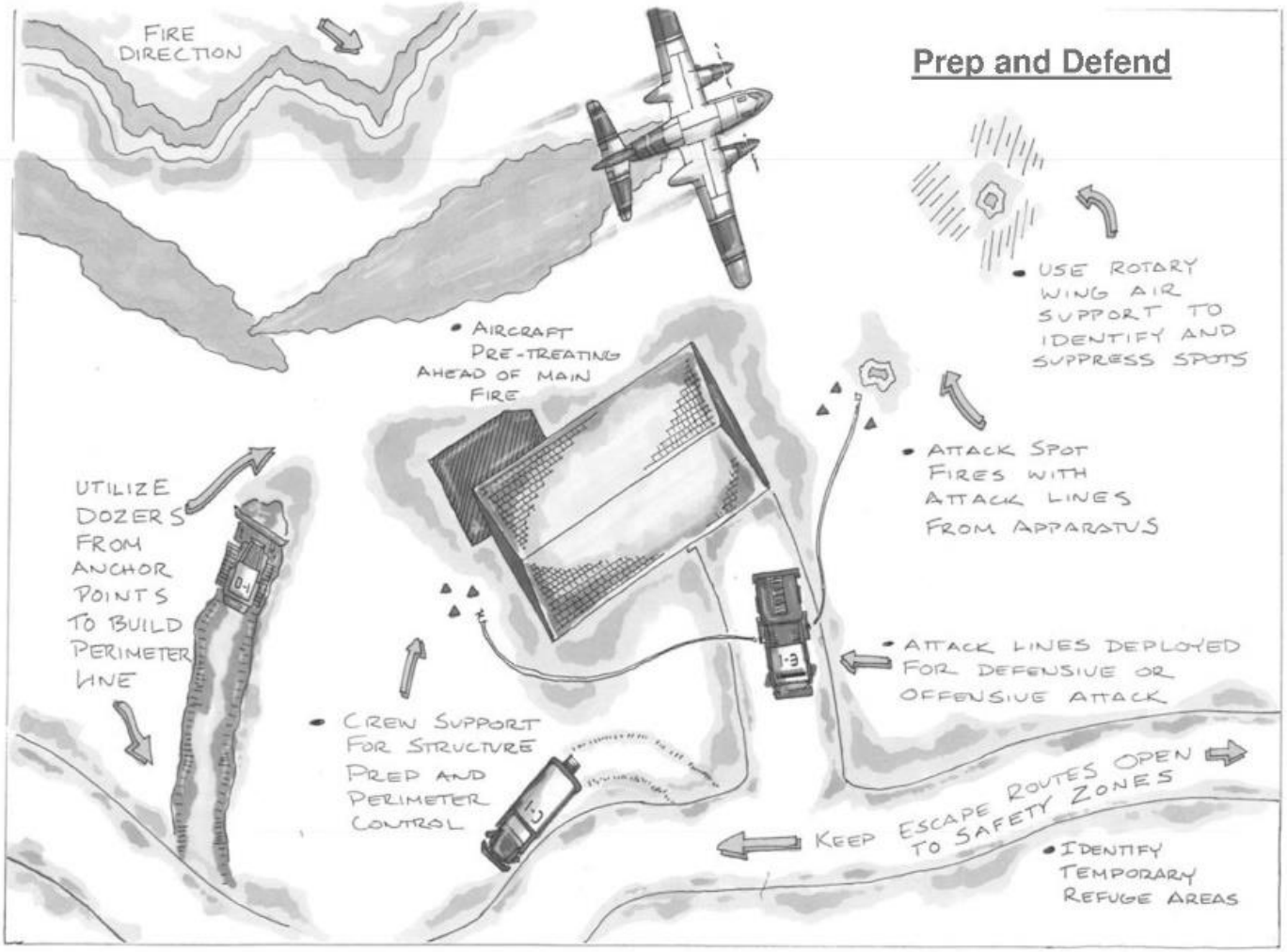
1. **STAND ALONE**
   Triage Category: Defensible (Low Risk)
   - **Purpose:** Adequate safety zones and escape routes allow for safe and effective preparation and defensible stand.
   - **Indicators:** Structure requires little or no preparation or protection.
   - **Actions:** Ensure adequate structural preparation measures are in place. If needed make defensible stand as fire front approaches.
   - **Considerations:** Situational awareness. Tactical patrol before and after fire front. Increased possibility of occupants holding in place.

WILDLAND – STRUCTURAL PROTECTION

2. PREP & DEFEND

Triage Category: Defensible (Moderate Risk)

- **Purpose:** A tactic used when it is possible for fire resources to stay and defend structures as the fire front arrives.
- **Indicators:** Safety zones, escape routes and TRAs are present and adequate time allows for safe preparation of structure for defense prior to fire front impact.
- **Actions:** Aggressive structure prep following Structure Prep Checklist. Adequate time, resources and conditions to make a defensible stand as fire front approaches.
- **Considerations:** Situational awareness, escape routes and safety zones must be identified and maintained. Utilization of PACE planning in case of adverse fire behavior changes. Fire behavior must allow for firefighters to safely remain in place and engage the fire.

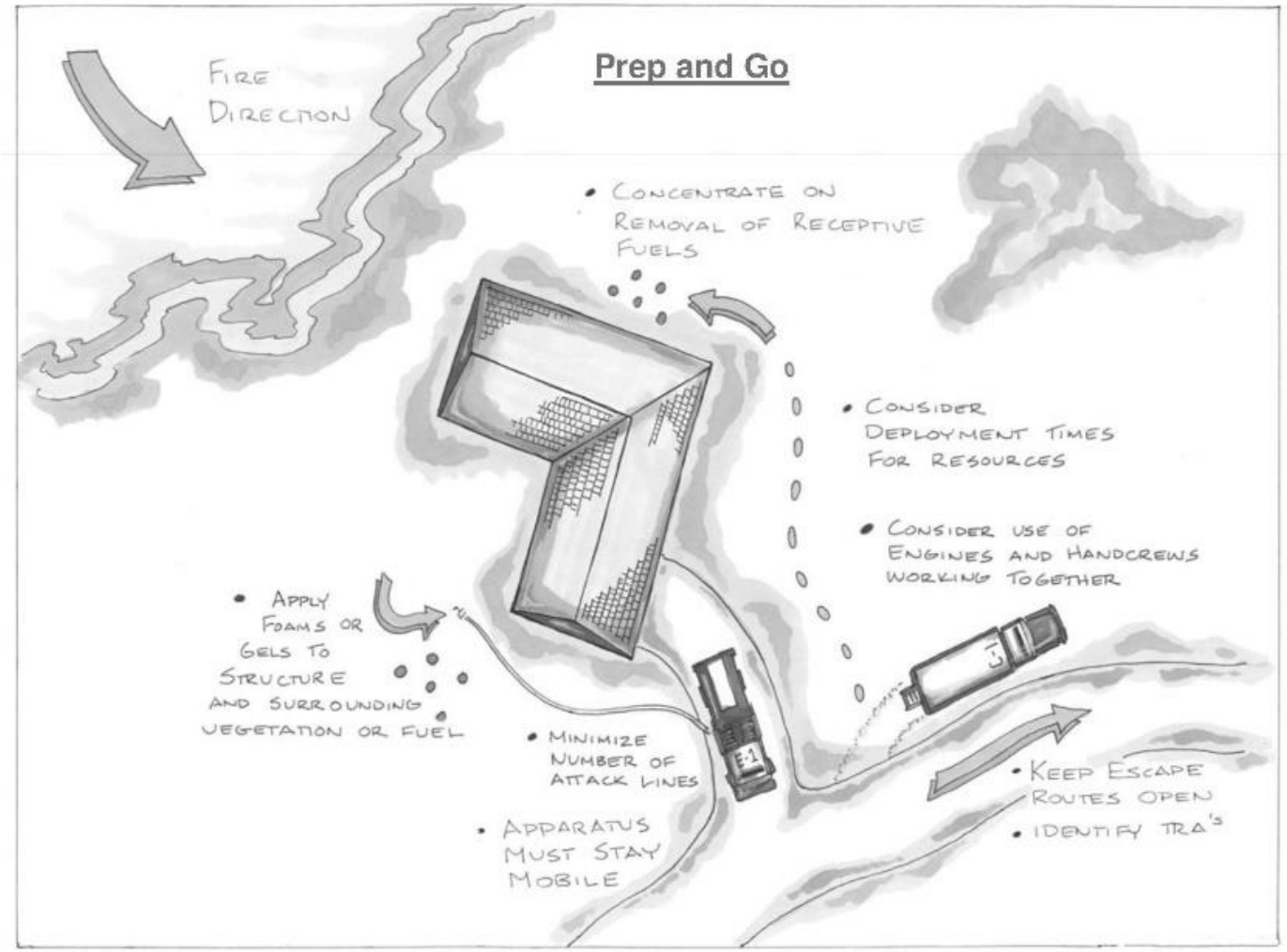


WILDLAND – STRUCTURAL PROTECTION

3. PREP & GO

Triage Category: Defensible (High Risk)

- **Purpose:** No safety zone present.
- **Indicators:** Time allows for rapid mitigation measures.
- **Actions:** Rapid triage, prep and retreat to Safety Zone or TRA.
- **Considerations:** Set trigger point for safe retreat and return tactical action.

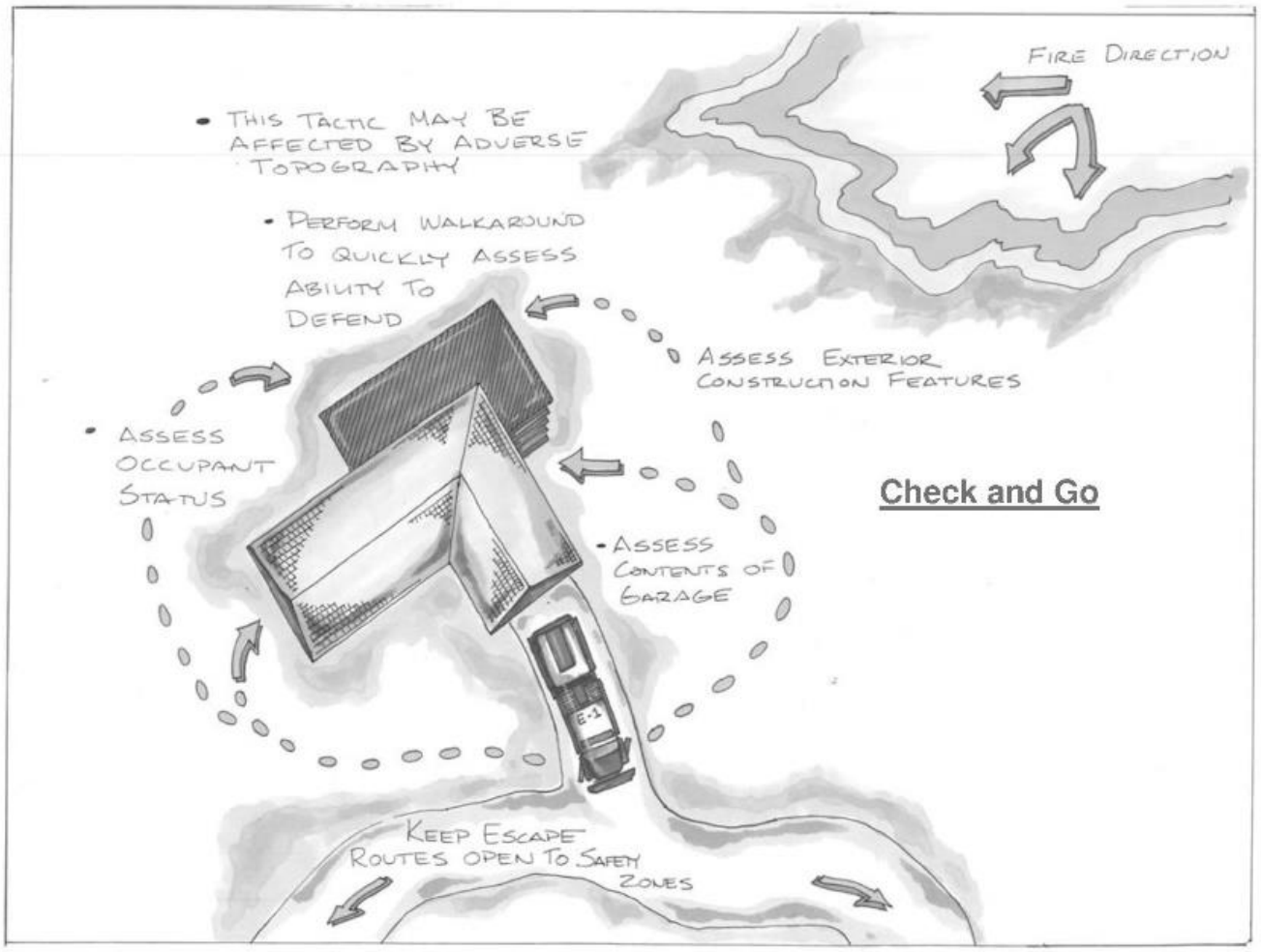


WILDLAND – STRUCTURAL PROTECTION

4. CHECK & GO

Triage Category: Non-Defensible (Extreme Risk)

- **Purpose:** Inadequate defensible space prohibits safe defense actions.
- **Indicators:** Extreme fire behavior, compressed time constraints.
- **Actions:** Rapid evaluation to check for occupants who may require removal or rescue, then withdraw to a Safety Zone or TRA.
- **Considerations:** Retreat and return tactical action when able.

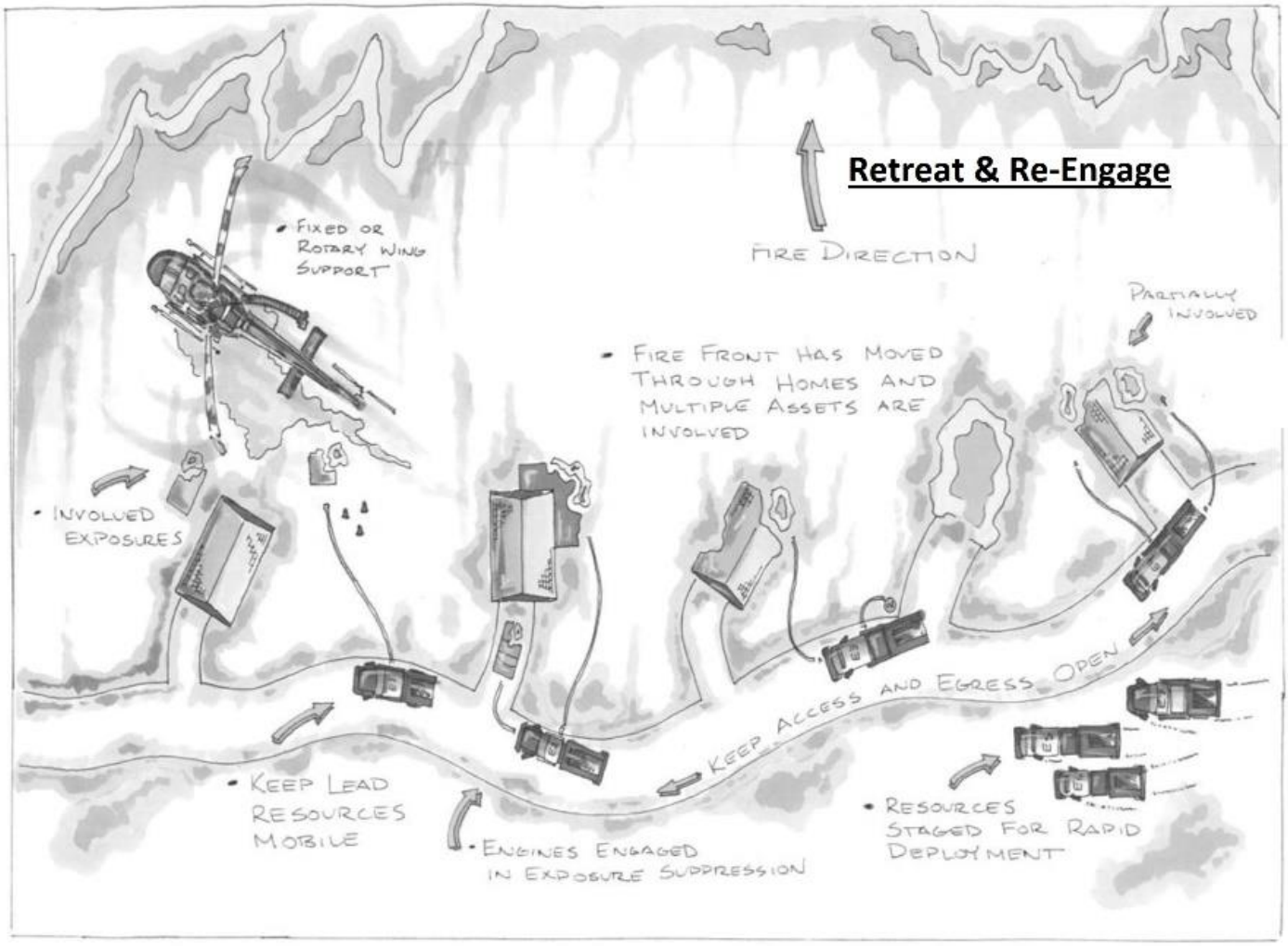


WILDLAND – STRUCTURAL PROTECTION

Secondary Tactical Action

Secondary tactical action should be utilized to supplement and support the primary tactical action.

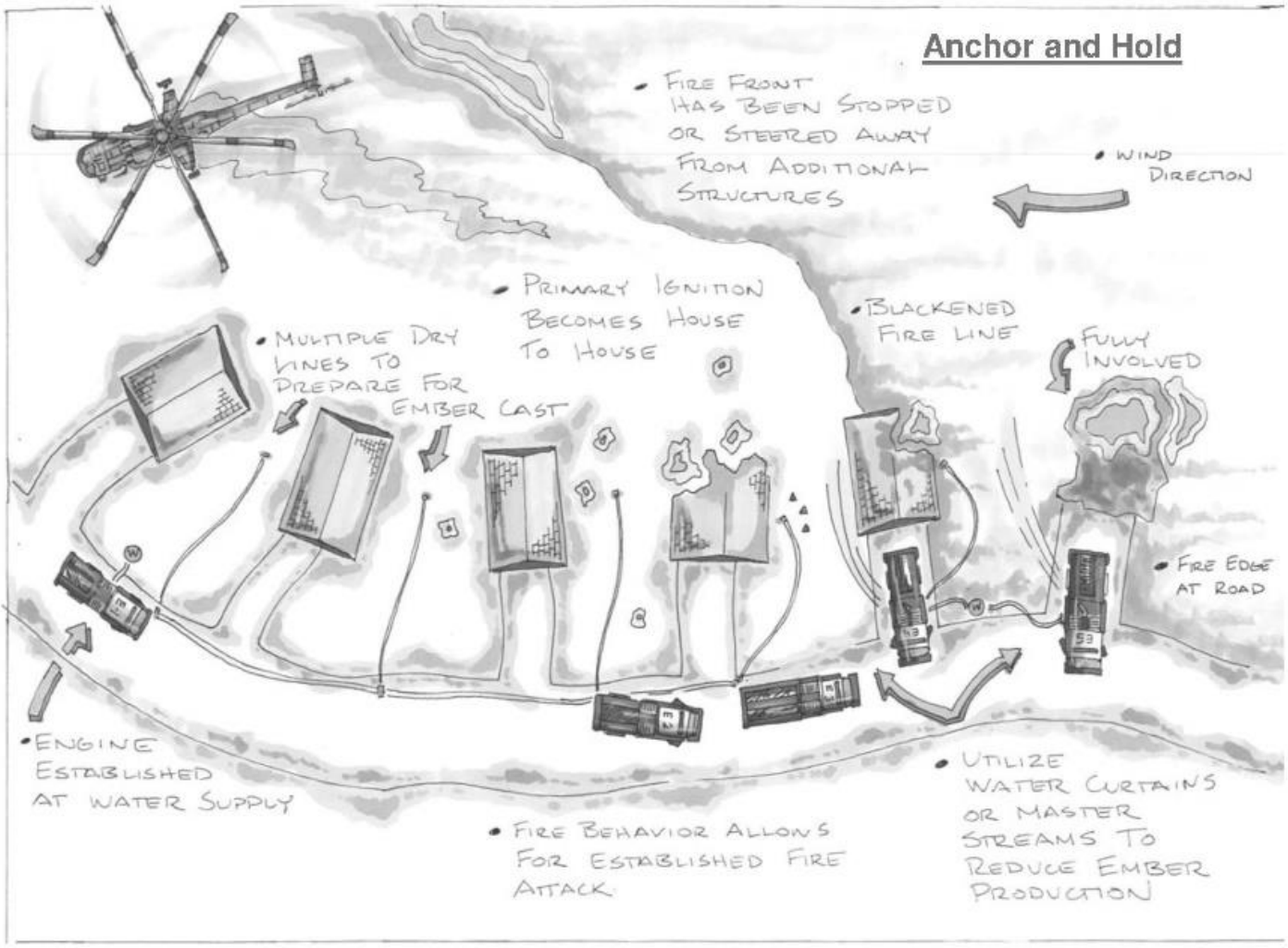
1. **RETREAT & RE-ENGAGE**
   - **Purpose:** Follow up tactic used when Check and Go, Prep and Go or Bump and Run tactics are initially used.
   - **Indicators:** When there is insufficient time to safely set up ahead of the fire or the intensity of the fire would likely cause injury to personnel located in front of the fire.
   - **Actions:** After retreating to TRA or Safety Zone, return behind the fire front to search for victims, minimize property loss, effect perimeter control, extinguish hot spots around structures, control hot spots and reduce ember production.
   - **Considerations:** Adequate TRA and/or safety zone



WILDLAND – STRUCTURAL PROTECTION

2. ANCHOR & HOLD

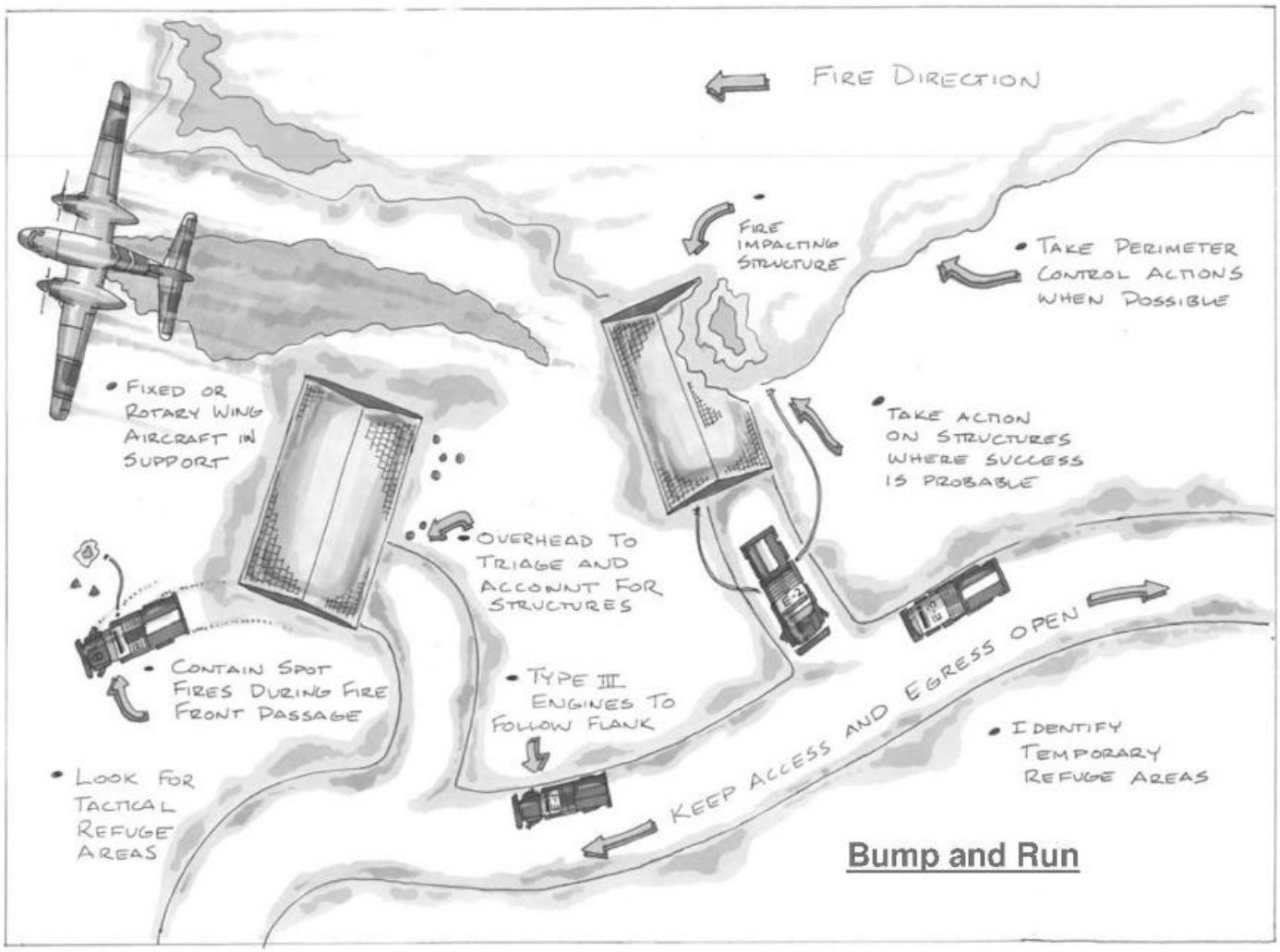
- **Purpose:** Defend exposures, stop structure to structure ignitions, reduce ember production and extinguish structure fires.
- **Indicators:** Primary mechanism of fire spread is STRUCTURE to STRUCTURE in common neighborhoods or commercial areas.
- **Actions:** Tactical utilization of control lines and large water streams from fixed water supplies.
- **Considerations:** Only utilized when water supplies are abundant. Utilization of gels and class "A" foams to assist in mop-up and prevent secondary ignitions.



WILDLAND – STRUCTURAL PROTECTION

3. BUMP & RUN

- **Purpose:** Often used when inadequate resources are available to conduct perimeter control or other structure defense tactics.
- **Indicators:** Defensive tactic when fire front impact is imminent. Offensive tactic when resources are attempting to steer the fire to an established end point where other resources have prepared control lines. Structure prep is minimal due to compressed time constraints.
- **Actions:** Resources move ahead of the fire front to extinguish spot fires, hot spots and defend structures. Resources remain mobile, able to maneuver quickly, leapfrogging from one structure to another.
- **Considerations:** Situational awareness and utilization of PACE Planning. May involve direct attack with fireline and firing operations. FFs must move if structures become involved and quick knockdown cannot be achieved. Utilization of additional resources behind "bump and run" for perimeter control and tactical patrol.



WILDLAND – STRUCTURAL PROTECTION

TACTICAL PATROL

- **Purpose:** Tactic used before or after fire front that relies on mobility of assigned resources to continually monitor assigned areas
- **Indicators:** Before or after fire front in which the fire may pose a risk to structures from fire brands or smoldering combustibles in void spaces, roofs, in rain gutters and stored material near buildings. Also, in areas away from the fire in which there is predicted to be significant ember showers and there is an accumulation of receptive fuels.
- **Actions:** Patrol area where the fire has passed but there is still a risk to structures from fire brands
- **Considerations:** Patrol areas downwind of potential ember showers. This tactic should also be considered to extinguish hot spots (mop up) or secondary structure ignitions, and address safety issues such as power lines, hazard trees and other hazards.

WILDLAND – STRUCTURAL PROTECTION

III. Overhaul

Many structures have been lost after successfully pushing the fire front around but not following up with adequate overhaul. Embers may maintain heat for long durations in the right fuel beds.

Thermal Imagers provide great value when searching out hot spots.

Procedure:

1. Check structures every 30 minutes or as frequent as possible.
2. Consider assigning a ST/TF or multiple units to a geographic location where the fire has passed.
3. Whether you engaged the fire or are returning to the structure after the fire has passed, you should concern yourself with three overhaul zones: the structure itself, the site around the structure, and the burned edge in the vegetation.

The structure itself:

- Overhaul any charring and check for further extension
- Check under decks, in gutters, and eaves
- Check around roof and foundation vents, shingles, and roof tiles
- Check any path which flying brands may have entered the building
- Where possible, check the interior and attic space

SITE AROUND THE STRUCTURE:

- Completely overhaul any spot fires, look for any smokes or heat indicators; decorative landscaping, bark mulch, wood piles, etc.
- Look overhead for smoldering in trees, power poles or other exposures
- Ensure access is clear of any obstacles resulting from the fire.

BURNED EDGE IN THE VEGETATION:

- A minimum mop up standard of 20' in from the edge of the black should be accomplished. If high winds are expected or the structure is upslope from the perimeter, increase the mop up to 50' from the edge.
- Utilize wildland hand tools during mop up; this will ensure the water/foam penetrates the materials (leaf litter, duff, etc.) to reduce the potential for flare ups and allow the water to go further.
- Where appropriate utilize hand tools to construct a hand line to secure the edge of the fire and ensure containment. As a rule of thumb, the line width should be 1 ½ times the height of the fuel.
- Look up and down. Smoldering or active burning may be present in the tree tops, knot holes or root systems.