



Jackson Hole Fire/EMS

Operations Manual

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PURPOSE:

To establish guidelines that will provide the Incident Commander and department personnel with effective residential attic fire mitigation tactics. Incident objectives should prioritize life safety, incident stabilization, and property/structure conservation.

SECTION 1: SAFETY

1. Safety must be the primary consideration during any fire ground operations or attack on an attic fire. Operating either above a fire or below a fire is an extremely hazardous situation.
2. Building constriction, time burning/fire extension, any signs of structural instability or collapse, roof load, HVAC, etc. must be considered prior to committing personnel to an attic fire attack.
3. Reference Policy 16-1 Risk Assessment and Decision Making for further guidance.
4. Offensive or Defensive strategy announced over the radio and understood by fire crews.

SECTION II: ATTIC FIRE TACTICAL CONSIDERATIONS

1. Prior to interior or exterior operations against an attic fire, Policy 16-2 Initial Structure Fire Tactics should be referenced and followed.
2. Initial Attic fire considerations:
 - a. Rapid water application to knock down exterior fire is a critical part of any attempt to control fire spread to the attic space.
 - b. Assess structural stability prior to any fire attack. Be sure to assess collapse potential prior to committing crew above or below an attic fire.
 - c. Assign utilities and perform aggressive salvage as soon as possible
 - d. Often attic fires will have limited smoke/heat in the living space below. This is a good indicator of an attic fire.
 - e. Attic fires are commonly ventilation-limited fires; closely time or limit ventilation until water is in the attic. If the fire has self-vented, consider transitional attack prior to other techniques listed below. The more air that is introduced into an attic space the larger the fire will become.
 - f. Fast water application into the attic space will produce the best result.

- g. Adding water to an attic space can cause saturation of insulation, drywall, and structural members leading to increased collapse potential. Addition of water into the attic will impact structural stability over time.
- 3. Construction methods used in our response area including but not limited to, wooden soffits/eaves, plastic/wood ridge vents, SIP panels, cold roofs, etc. can affect size-up and fire dynamics.
 - a. Increased use of plastics in exterior walls will change the situation to which you arrive.
 - b. If the fire starts on the exterior, start fighting it from the outside; learn to anticipate where and how an exterior fire will migrate to the interior.
 - c. Attic construction affects hose stream penetration consider flowing up instead of down with a master stream if exterior water application is selected.
 - d. Due to local construction techniques soffit/eave attack may provide limited results.
- 4. Gable end attack should be considered as a primary means of attack for Transitional or Defensive exterior operations.
 - a. Gable size can be enlarged to facilitate proper hose stream applications.
 - b. Gable vent location in relation to the seat of the fire will affect this tactics effectiveness.
- 5. If the roof is determined to be stable for fire operations, removing roof/attic venting may provide an additional means of access to the fire area for exterior operations.
 - a. Vertical ventilation should be considered as a technique in coordination with or after water has been applied into the attic space. Vertical ventilation alone provides oxygen to a vent-limited attic fire.
- 6. Creating a small opening in a ceiling or utilizing an existing hole that provides access into the attic and directing a hose stream into the attic space should be considered as a primary means of attack for interior operations.
 - a. Prior to using this tactic, it is imperative to assess the structural stability of the ceiling and roof.
 - b. Crews should evaluate smoke conditions and utilize thermal imagers to locate the fire.
 - c. Make a small opening in the ceiling where the hose stream can be directed for the most effective indirect attack cooling from the safest location either within the structure or from outside of the structure. Do not position crews directly under the fire.
 - d. Move the nozzle to wet as many surfaces as possible A fog stream or piercing nozzle can increase water mapping and steam conversion in this unoccupied space.
 - e. Keep the hole size small to limit air flow to the fire, just large enough to allow the introduction of a stream for gas cooling. Once gasses have been cooled, the opening, or openings, can be increased and expanded to allow for more efficient wetting of surfaces and complete extinguishment.”
 - f. Ensure that the nozzle is above the insulation.
- 7. Water Supply demands in a fire that has extended into the attic will require more than tank attack.
- 8. Consider fire extension to void spaces such as knee walls or other isolated compartments.
- 9. Training should include Residential Attic and Exterior Fire by FSRI <https://training.fsri.org/>