



STRUCTURE DEFENSE GUIDE CARD

STRUCTURE TRIAGE DECISION PROCESS (S-FACTS)

SURVIVAL

- Initial Assessment: can you survive here? **If not, LEAVE NOW!**
- Is there a Safety Zone nearby? **If not, LEAVE NOW!** (IRPG)
- Do you have a viable Escape Route?
- What is the decision point at which you will leave based on fire behavior and rate of spread?
- Is there a Temporary Refuge Area (TRA) on site? **If not, LEAVE NOW!**
- Preplanned area for immediate, temporary refuge.
- Use of fire shelter should not be necessary
- Is there a viable Escape Route to the TRA and/or Safety Zone?
- Is the "Prep and Go" tactic an option?
- Do you have communication with your supervisor and adjoining forces?
- If safety issues cannot be mitigated, **LEAVE NOW!**

FIRE ENVIRONMENT

- Can you survive based on current and expected fire behavior? **If not, LEAVE NOW!**
- Look Up, Look Down, Look Around Indicators:
 - Fuels (characteristics, moisture, temperature)
 - What will be the intensity of the fire when it arrives?
 - How long will it take to consume the fuels?
 - Wind
 - Current speed/direction
 - Expected changing winds
 - Terrain
 - Are you in a chute, chimney, or saddle? If yes, LEAVE NOW!
 - Is the wind in alignment with topography?
 - What is your position relative to topography?
 - Are you mid slope or at the top of a ridge?
 - Atmospheric Stability
 - Fire Behavior (requires constant monitoring)
 - Spotting, crowning, sheeting, rate of spread?
 - Flame length and height?
- Other weather considerations:
 - What is the current relative humidity?
 - Is there an expected change?
 - Are thunderstorms forecasted?

ACCESS

- Is access compatible with time and distance factors necessary to utilize an Escape Route to a Safety Zone?
 - Road surface adequate for speed necessary?
 - Adequate width?
 - Turnarounds/turnouts?
 - Bridges within limits for fire apparatus?
 - Drainage ditches and culverts?
 - Steep grades?
 - Is there a place to spot apparatus?

CONSTRUCTION/CLEARANCE

- Does the construction have adequate defensible space, based on topography, fuels, and current and expected fire behavior?
- Can defensible space problems be mitigated quickly?
- Will building materials and yard clutter compromise safety?
- Is the construction wood siding or shake shingle roof?
- Are there vent openings, open eaves, large glass windows facing the fire front, decks with vegetation below?
 - Will ember intrusion through attic or foundation vents be a problem?
- What are the contents in the garage and outbuildings?
- Are there hazardous materials present?
- Are there propane tanks, fuel tanks, or power lines?
- Is there adequate water supply nearby?
- Are additional resources needed to mitigate issues?
- Consider “Prep and Go” and “Prep and Defend” tactics?

TIME CONSTRAINTS

- Is there time for an adequate size-up of the structure defense problems?
- Is there time to mitigate safety concerns?
- Is there time and adequate resources to properly prepare and defend the structure?
- Is there time to escape, utilizing Escape Routes, to a Safety Zone? **If not, LEAVE NOW!**

STAY OR Go

Tactical decisions based on the S-FACTS:

- Is it safe to stay? If not, utilize “Check and Go” tactic
- Is there time to prepare the structure for defense and what will the fire behavior be when the fire gets here?
- “Prep and Go” and “Fire Front Following” tactics should be used when it is not safe to “Prep and Defend”

CONSIDER PRIOR TO ENGAGEMENT

- Are you adhering to the **10 Standard Firefighting Orders?** (IRPG)
- Have you considered the **18 Situations that Shout Watch Out?** (IRPG)
- Have you established **LCES?**
- Emphasize “Look Up, Look Down, Look Around” throughout the incident
- Have Decision Points (“Trigger Points”) been established?
- Conduct Risk Management Assessment (IRPG)

Situational Awareness - Hazard Assessment - Hazard Control - Decision Point - Evaluate

STRUCTURE TRIAGE CATEGORIES

Not-Threatened

- Safety Zone nearby and TRA present at structure
- Construction features/defensible space make structure unlikely to ignite
- Residents may/may not have evacuated

Threatened Defensible

- Safety Zone nearby and TRA present at structure
- Construction features/defensible space require structure defense tactics during fire front impact
- Residents may/may not have evacuated

Threatened Non-Defensible

- Lack of adequate Safety Zone nearby
- Structure cannot be safely defended
- Residents must be evacuated

STRUCTURE DEFENSE TACTICAL ACTIONS

- **Check & Go** - Most appropriate action when no Safety Zone/TRA is present and the fire front impact is imminent. Conduct rapid evaluation to check for occupants and evaluate for follow up action. **LEAVE promptly.**
- **Prep & Go** - Structure preparation can be safely completed prior to fire front impact. Potential fire activity is too dangerous to remain and/or there is no Safety Zone/TRA present. **LEAVE before Escape Routes are compromised.**
- **Prep & Defend** - Appropriate when a Safety Zone is nearby and a TRA is present. Adequate time exists to prepare the structure for defense prior to fire front impact. Escape Routes must be maintained.
- **Evacuation** - Utilize either as an "Immediate Need" or as a "Planned Action" well before the fire front hits. Immediate Need evacuations will require the rapid removal or escort of civilians from an area by all resources in an effected area. **Planned** evacuations are coordinated efforts with the local law enforcement agency to ensure they are thorough and efficient with minimal duplication of effort.
- **Fire Front Following** - Follow-up tactic after passage of the fire front. Involves searching for victims, perimeter control, hot spotting, and ember control.
- **Bump & Run** - Resources move ahead of the fire front extinguishing spot fires and defending structures. Utilize extreme caution.
- **Anchor & Hold** - Resources use large-volume water streams to extinguish structure fires, stop structure-to-structure ignitions, protect exposures, and control embers.
- **Tactical Patrol** - Resources remain mobile and continuously monitor assigned area after fire front passage. Involves aggressive mop-up around structures.

Structure defense tactics are a vital part of perimeter control operations.

- Stopping fire spread significantly eliminates the fire's threat to structures.
- Connect contained points along the fire's edge to strengthen perimeter control. Typically used near the values at risk.
- Perimeter control and structure defense should be done concurrently.

TACTICAL PLANNING

Utilize **PACE**

- **P**Primary Plan (Offensive)
 - Focused on fire fighter safety and objectives
- **A**lternate Plan (Offensive)
 - Fallback plan that closely resembles primary plan
- **C**ontingency Plan (Defensive)
 - Focused on fire fighter safety, move to a Safety Zone or Temporary Refuge
- **E**mergency Plan (Defensive)
 - Fire fighter survival
 - Deployment Zones/Refuge Areas
 - Fire Shelters

IMMEDIATE NEED EVACUATION CHECKLIST

- Co-locate with law enforcement at ICP
- Identify evacuation area utilizing local maps. Include area of incident potential when determining evacuation area
- Identify traffic control points for entry and exit of resources and civilians
- Identify areas that must be immediately evacuated and label as “evacuation order” area
- Identify areas that are potentially threatened and label as “evacuation warning” areas
- Identify community safe refuge areas inside evacuation areas
- Determine and publish evacuation routes
- Identify and clearly communicate the decision points for implementing additional evacuation areas
- Identify areas of special-needs populations and large animals
- Consider public information system for evacuations

IMMEDIATE NEED EVACUATION CHECKLIST

- Back equipment in for tactical mobility
- Shield apparatus from radiant heat - be aware of structure ignition potential
- Park in cleared area (watch for hazards overhead such as power lines and trees)
- Have an engine/crew protection line identified
- Determine if residents are home. Determine best course of action - evacuate if safe to do so or shelter in place at a safe location
- Maintain communication with all crew members
- Maintain at least 100 gallons of water reserve in your tank
- Top off your tank at every opportunity (use garden hose if possible)
- For roof access, place owner's ladder at a corner of the structure on the side with the least fire threat and away from the structure's power drop
- Keep out of heavier fuels (suppress lighter fuels)
- Clear around and shut off above-ground fuel tanks
- Close windows and doors, including garage, leaving doors unlocked
- Place combustible outside furniture inside the structure
- Change and place garden hoses strategically around structure for immediate use if needed
- Move wood piles away from structure
- Consider applying foam/gel to the structure (roof and siding) and/or fuels
- **REMEMBER** to follow up with **TACTICAL PATROL!**