



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 and 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 "Evacuation" or “Check and Go” tactics
- 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 **LACES** (Lookouts, Anchor Points, Communications, Escape Routes, Safety Zones) and identified **TRA's**?
- 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

TACTICAL COMBINATIONS

STRUCTURE DEFENSE CATEGORY	APPROPRIATE TACTICAL ACTIONS
Not Threatened	Prep and Defend Tactical Patrol
Threatened Defensible	Prep and Defend Bump and Run Anchor and Hold Tactical Patrol
Threatened Non-Defensible	Evacuation Check and Go Prep and Go Fire Front Following Tactical Patrol

STRUCTURE DEFENSE TACTICAL ACTIONS

- **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. **Planned evacuations** are coordinated efforts with the local law enforcement agency.
 - **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.
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- **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

Use **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 Areas
- **E** mergency Plan (Defensive)
 - Fire fighter survival
 - Deployment Zones/Temporary 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

STRUCTURE DEFENSE FUNDAMENTALS

- 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 combustable 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!**