

# Volusia County Fire Services Safety Gram

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## LCES Checklist

In the wildland fire environment, lookouts, communications, escape routes and safety zones (LCES) are the keys to safe procedures for firefighters. The elements of LCES form a safety system used by firefighters to **PROTECT THEMSELVES AND TO HELP THEM WORK BETTER AS A TEAM**. The system is implemented before fighting the fire and includes: selecting a lookout or lookouts, setting up a communication system, choosing escape routes and selecting a safety zone or zones.

LCES is built on two basic guidelines:

1. Before their safety is threatened each firefighter must be informed how the LCES system will be used.
2. The LCES system must be continuously re-evaluated as conditions change.

### LOOKOUTS

- Experience/competent/trusted.
- Enough lookouts at good vantage points.
- Knowledge of crew location.
- Knowledge of escape and safety locations.
- Maps/weather kit/watch/IAP.

### COMMUNICATIONS

- Radio frequencies confirmed/know how to operate equipment.
- Backup and check-ins established.
- Updates on any situation changes.
- Sound alarm early, not late.

### ESCAPE ROUTES

- Have more than one escape route.
- Avoid uphill escape routes.
- Scout: loose soils/rocks/vegetation.
- Time: consider slowest person/fatigue and temperature factors.
- Mark: flagged for day or night (NFES 0566).
- Evaluate: apparatus parked for escape.

### SAFETY ZONES

- Survivable without a fire shelter.
- Back into clean burn.
- Natural features: rock areas/water/meadows.
- Constructed sites: clear cuts/roads/heli-spot.
- Scout for size and hazards.
- Upslope = more heat impact = large safety zone.
- Downwind = more heat impact = larger safety zones.
- Heavy fuels = more heat impact = larger safety zones.

Escape time and safety zone size requirements will change as fire behavior changes.  
Fireline Handbook 2004

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#### Dispersion Level Chart

Dispersion Range 0-40 is stable air, low fire intensity, less long range spotting.

Dispersion Range 41-70 is moderate unstable air, increased fire intensity and long range spotting.

Dispersion Range 70+ is unstable air, high amount of upper lifting, intense fire activity, potential for long range spotting and plume dominated wildfires.

Fire-line Handbook Jan. '98

**Fight fire aggressively, but provide for safety first.**

**Initiate all action based on current and expected fire behavior.**

**Recognize current weather conditions and obtain forecasts.**

**Ensure instructions are given and understood.**

**Obtain current information on status.**

**Remain in communication with crewmembers, your supervisor, and adjoining forces.**

**Determine safety zones and escape routes.**

**Establish lookouts in potentially hazardous situations.**

**Remain in control at all times.**

**Stay alert, keep calm, act decisively.**

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