

Kansas Wildland Firefighter

**Lesson 1 – Wildland
Firefighter Safety**

PPE

Wildland PPE benefits:

- Fire retardant material help prevent flame and burn injuries.
- It provides heat and flame protection. Protects from scrapes, cuts, and abrasions.
- Glove keep protects hands from scrapes, cuts, and abrasions.

PPE

Wildland PPE benefits (cont.):

- Boots protect from punctures and ankle injuries.
- Helmets protect from bumps and falling objects.
- Eye protections protect eyes from foreign objects.

PPE

Wildland PPE components:

- Helmet
- Boots
- Gloves



Photo: Kari Greer

PPE

Wildland PPE components (cont.):

- Eye Protection
- Natural Fiber Outerwear
- Natural Fiber Undergarments



Photo: Kari Greer

PPE

Wildland PPE

Characteristics:

- Lighter in weight than structural firefighting gear
- Better in hot weather than structural firefighting gear
- Cheaper to repair and replace.



Photo: Kari Greer

Wildland Firefighting Risks

- Limited visibility to perform operations and/or be seen by others.
- Personal exposure to high heat, smoke and physical exertion. Also, fall hazards like trees.



Photo:
Kari
Greer

Wildland Firefighting Risks

- Man-made infrastructure creates risks.



Photo:
Kari Greer

Wildland Firefighting Risks

- Terrain that is uneven
- Poor soil conditions



Two Basic Types of Hazards

1. Subjective hazards - Those hazards which one has direct control over (e.g., conditions of the equipment, choices, and decisions).
2. Objective hazards – Hazards that are a natural part of the environment (e.g., lightning, fire weakened trees, rolling rocks, entrapment). They cannot be eliminated.

Two Basic Types of Hazards

- Subjective hazard example: The condition of equipment.



Two Basic Types of Hazards

- Objective hazard example: Fire weakened trees.



Photo:
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Greer

LCES

- **LCES**: A key safety procedure in an environment of hazards.
 - **L**ookout(s)
 - **C**ommunications
 - **E**scape Routes
 - **S**afety Zones

LCES

- LCES (cont.)
 - **L**ookout(s) – must be in a position where both the objective hazard and firefighters can be seen.



Photo: Kari Greer

LCES

- LCES (cont.):
 - **C**ommunications – must be established with all firefighters operating in the fire environment.



LCES

- LCES (cont.):
 - **E**scape Routes – must always be more than one escape route available to firefighters.
 - **S**afety Zones – planned locations where firefighters may find refuge from danger and where no fire shelter is needed.

Fitness

- Know your physical limitations and operate within those limits



Photo: Kari Greer

Fitness

- EMS can monitor FFs for fatigue and heat-related issues



Photo:
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Greer

Fitness

- Rehab of FFs necessary for extended events
- Provide opportunities for rest



Photo: Kari Greer

Aviation

- Aviation resources on wildfires are becoming more common in Kansas.



Photo: Kari Greer

Aviation – Added Risks

- On the ground:
 - Avoid spinning rotors of aircraft. Do not approach an aircraft until cleared to do so by the pilot.



Photo: Kari Greer

Aviation – Added Risks

- In the air:
 - Avoid working under the aircraft
 - Aviation resources drop large amounts for water which creates huge hazards to personnel on the ground



Photo: Kari Greer

Helicopter Drops

- Aircraft reloads bucket by “dipping” in a body of water.
- Trailing drop – the aircraft drops water during a forward flight.

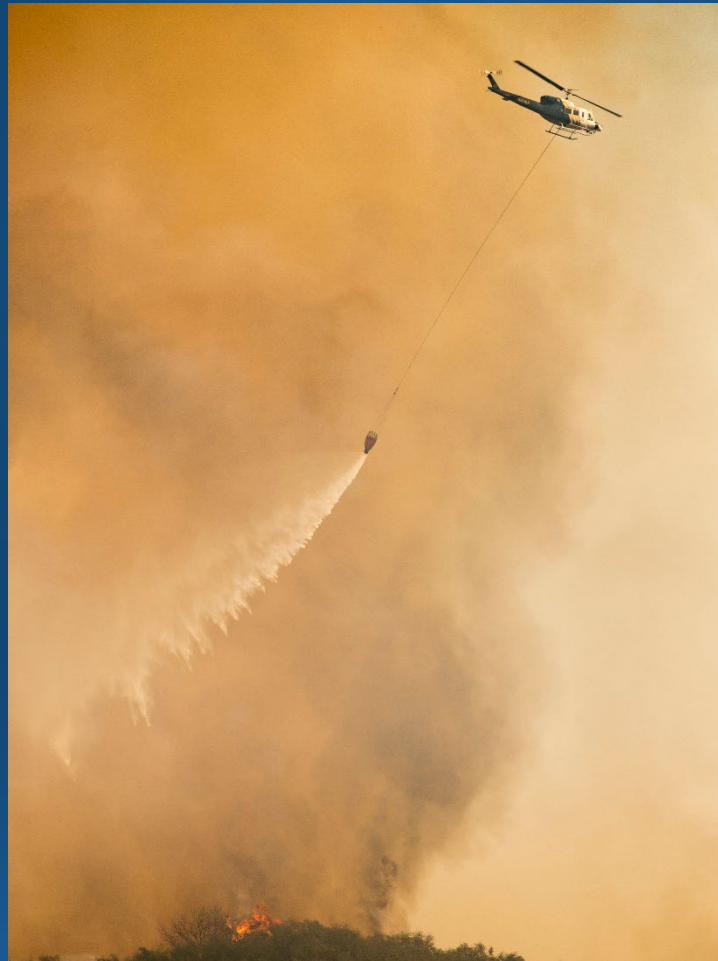


Photo: Kari Greer

Helicopter Drops

- Spot drop – the aircraft drops water while hovering in one spot



Photo: Kari Greer

Single Engine Air Tanker

- SEATS aircraft are typical “crop dusters” in Kansas



Photo: Kari Greer

Communication with Aircraft

- Must establish direct radio communication with aircraft on AM VHF Airband radio
- GPS coordinates, landmarks visible from the air and other unique descriptors may be the only way to communicate your location to a pilot
- Meet with pilot ahead of time
- Establish an Air Operations Officer

Highway Incidents

- When wildland fires occur along Highways special considerations need to happen:
 - Law Enforcement assist with traffic flow and the closing of routes.

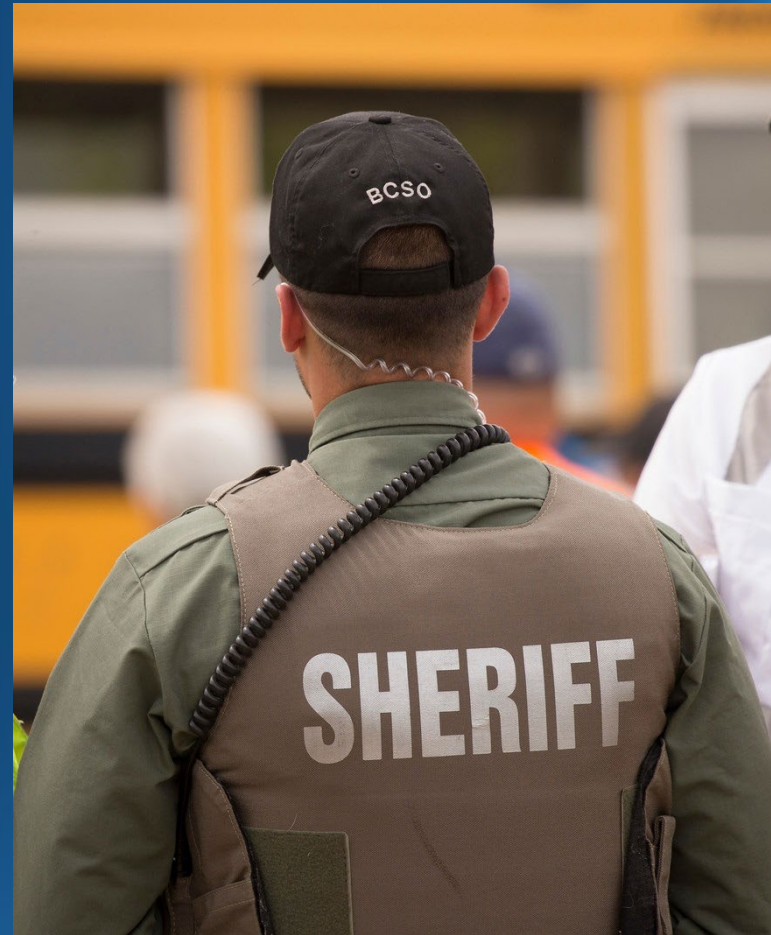


Photo: Kari Greer

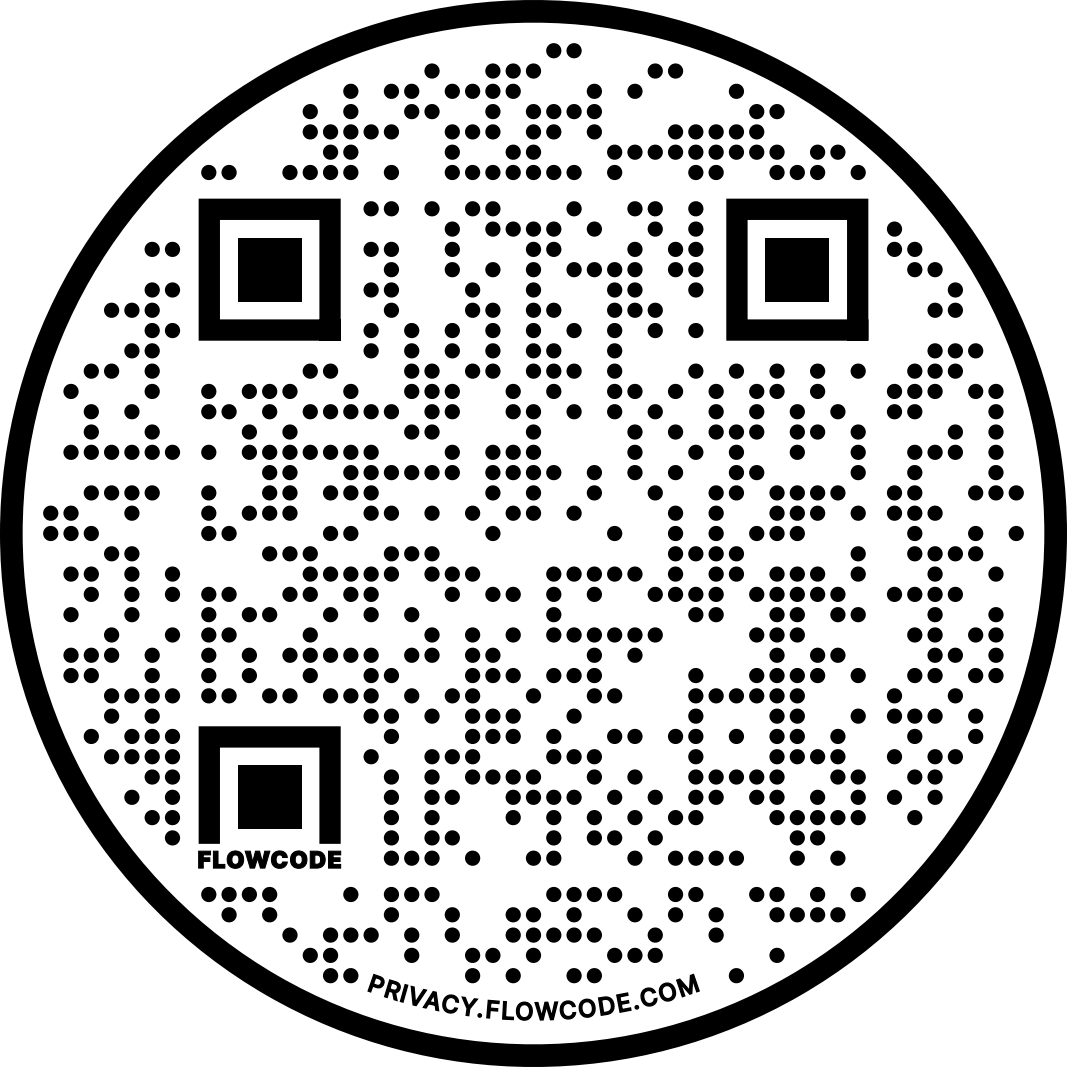
Rail Incidents

- Railroad special considerations:
 - Railroads: Know which rail company owns the right of way and have emergency contact information for those companies.

Rail Incidents

- Railroad special considerations:
 - Ask for railroad representatives to respond to the scene to manage rail traffic.
 - Railroads are happy to take part in preplanning for incidents in and around their property.

Questions?



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