

LYONS FERRY FIRE

BURNOVER

Consolidated Incident Report and Lessons Learned

Incident Date: July 16, 2026



Fire activity and aviation operations near the burnover incident area.

Incident Snapshot

Event	Rapid fire spread overtook two Helitack firefighters near a helicopter Landing Zone after both supporting helicopters departed for fuel.
Injuries	Two employees sustained second-degree burns, were transported to a hospital, treated, and released.
Medical Status	Reported injuries included second-degree burns involving the nose, ears, forearms, and other areas of the body.
Equipment Loss	Preliminary estimated damage is approximately \$26,306.88, including a helicopter bucket, long line, portable radio, fire shelter, PPE, and miscellaneous line gear.
Current Status	All personnel and aircraft are accounted for. Equipment recovery, fact gathering, and incident review remain ongoing.

PRIMARY LEARNING FOCUS

Rapidly changing fire behavior, diminished aerial oversight while both helicopters were refueling, limited ground communications, incomplete escape route and safety zone options, and delayed certainty during medical evacuation planning combined to narrow the crew’s decision space.

This report consolidates information from initial notifications; statements from the pilot, Helicopter Manager (HMGB), Helicopter Manager trainee (HMGB(t))and Squad Boss; medical updates; and equipment-accountability information. It remains preliminary and may be updated as additional facts are confirmed.



What Happened

On July 16, 2026, several aviation resources were ordered under the Washington State Mobilization Plan to assist on the Lyons Ferry Fire, burning on non-Washington Department of Natural Resources (DNR) protected lands in Franklin County, Washington. An incident occurred involving a Helicopter Manager Trainee (HMGB(t)) and Squad Boss, both of whom received second-degree burns when they were burned over near the established helicopter Landing Zone. Both firefighters were transported by helicopter to a nearby airport, transferred to waiting ambulances, evaluated at a local hospital, treated, and released.

Initial Assignment and Arrival

The assigned helicopter departed its home base at approximately 1023 hours and arrived over the incident at approximately 1120 hours. The aircraft carried the pilot, a Helicopter Manager (HMGB), a (HMGB(t)), and a Squad Boss. A Type 1 helicopter, Air Attack, and two scoopers were already operating over the fire.

After an aerial assessment and coordination with Air Attack, the fire's left flank was identified as the priority area for helicopter suppression and crew support. The helicopter landed near the incident command vehicle and engines. At that time, the fire was estimated to be one-quarter to one-half mile away, located below a bluff. The Landing Zone did not present an obvious concern to the pilot or crew.

The crew disembarked, and the HMGB met face-to-face with the Incident Commander (IC) to establish communications. The IC could monitor DNR Air to Ground (A/G) 1 but could not transmit. Because the available radios did not share the local tactical frequency, RedNet (the statewide Mutual Aid frequency) was selected as the common channel between the IC and Helitack, with the HMGB relaying information to Air Attack as needed.

The crew unloaded equipment at the Landing Zone and supported suppression along the fire's flank, including directing bucket drops. The pilot advised that the helicopter would need to depart for fuel. The HMGB moved approximately 100 yards from the Landing Zone to assess fire activity, while the HMGB(t) remained near the Landing Zone. After approximately 35 to 40 minutes of bucket work, the bucket and 75-foot longline were disconnected and staged at the Landing Zone before the helicopter departed to refuel.

Ground Operations and Changing Conditions

At approximately the same time, the second helicopter also departed for fuel, temporarily reducing additional Lookouts and helicopter suppression support at the incident.

The three crew members were operating in separate but nearby locations. The Squad Boss was positioned approximately 100 yards south of the IC's former location as a lookout. The HMGB met with the Squad Boss to discuss conditions and then moved into the cooled black edge to begin cold trailing after scooper drops had reduced visible activity. The HMGB(t) remained near the Landing Zone and staged equipment. During this period, the IC and engines relocated to address a slopover elsewhere on the fire and the HMGB was unable to reestablish direct contact with them.

Fire activity then increased rapidly. The HMGB encountered heat that could not be contained. The Squad Boss observed increasing activity and fire whirls. The HMGB(t) reported a wind shift near the Landing Zone.

The Squad Boss recalls thinking: *"I'm standing on a south-facing aspect, got a canyon right below with fuels between me and the fire."* Recognizing that the fire could hook around either flank and run uphill toward the Landing Zone, the Squad Boss returned toward the HMGB(t), who had started to move equipment into an approximate 10-by-15-foot cleared area.

Fixed-wing aircraft attempted to slow the advancing fire and protect the Landing Zone area. As conditions worsened, the crew recognized that the drops were not creating a secure holding area and that there was no road access from their location. The HMGB and HMGB(t) requested that the engines return, including through an Air Attack relay. However, the engines did not arrive before the burnover occurred. At this point, the Helicopter Manager moved farther into the black to reestablish communications.



Aerial suppression operating near the fire.



Actual location where the burnover occurred, photographed after fire passage.

Entrapment and Movement to the Black

The fire advanced uphill toward the Landing Zone faster than expected. The firefighters attempted a burnout to get into the black, located in-between them and the oncoming fire. They moved toward the small, cleared area where equipment had been staged. During this movement, the HMGB(t) tripped and fell. As the fire overtook their retreat, a fusee was thrown in an additional attempt to create backing fire between them and the advancing front.

They took cover in the cleared area behind staged equipment. The Squad Boss had not gotten his fire shelter out of the pack yet. At this point, he didn't believe he had time to do so—he could taste the gases and feel the heat of the fire. The HMGB(t) had his shelter in hand. But, while reaching for the deployment tab, he felt his ear burning, tucked his head down, and did not deploy it.

Immediately after the fire passed, the two firefighters moved into the black in the direction from which the fire had come, where they found clearer air, cooler conditions, and room to breathe.

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Rescue and Extraction

Radio traffic heard by the returning pilot indicated conditions at the original Landing Zone had changed significantly, the Helitack personnel were attempting to defend the equipment, and that fixed-wing aviation resources were assisting.

Following the fire's passage, radio traffic indicated that personnel were in the black and safe. Upon arrival, the pilot initially had difficulty identifying the original Landing Zone because the area had burned and was obscured by smoke. The Squad Boss activated a strobe light, allowing the pilot to identify their location and land nearby.

Following the burnover, the HMGB, who is an Emergency Medical Technician, moved upslope to locate and assess the two injured personnel.

After assessing the injured firefighters, the HMGB made multiple attempts to contact the IC and Air Attack but was unable to establish reliable communications.

Communication was established with the returning helicopter and the crew coordinated medical transport. The exact time that these communications were reestablished remains unconfirmed.

The severity of the event became clearer when the pilot observed a crew member handling an unused fire shelter and learned that at least one employee had sustained burns.

The crew boarded the helicopter and confirmed that medical evacuation was required. Given the burn injuries, limited ground access, and the helicopter's immediate availability, the pilot and crew selected a nearby regional airport where ambulances could meet the aircraft. (The available source material does not document a separate formal aviation-risk assessment for this transport decision.)

The helicopter departed the incident at approximately 1309 hours with the injured employees aboard and an estimated 15-minute flight to the airport.

Incident-Within-an-Incident and Medical Coordination

While the helicopter was en-route, the Incident-Within-an-Incident (IWI) process was initiated, required notifications were made, and emergency medical transportation was coordinated.

Positive communication was ultimately established with Dispatch and the 8-Line medical process was initiated.

Two ambulances were requested and positioned at the destination airport before the helicopter arrived. Upon landing (at approximately 1330 hours), the two injured firefighters were transferred to the waiting ambulance crews and transported to a local hospital, arriving at approximately 1359 hours.

The aircraft returned to its home base without further incident.

Medical Status

Both injured employees were evaluated and treated at the hospital. Both were released and transported home.

Reported injuries included second-degree burns involving the nose, ears, forearms, and other areas of the body.

Equipment Damage

Preliminary combined equipment loss is approximately \$26,306.88. This estimate may change as equipment is recovered, inspected, or determined to be damaged.

Aviation External-Load Equipment

- One helicopter bucket, estimated replacement value of more than \$20,000
- One 75-foot longline, estimated value of approximately \$3,200

Firefighter Equipment

- One portable radio
- One hand tool bag
- One fusee pouch
- One regular fire shelter
- One personal first aid kit
- Two pairs of flame resistant pants
- Two flame resistant shirts



Damaged helicopter bucket.



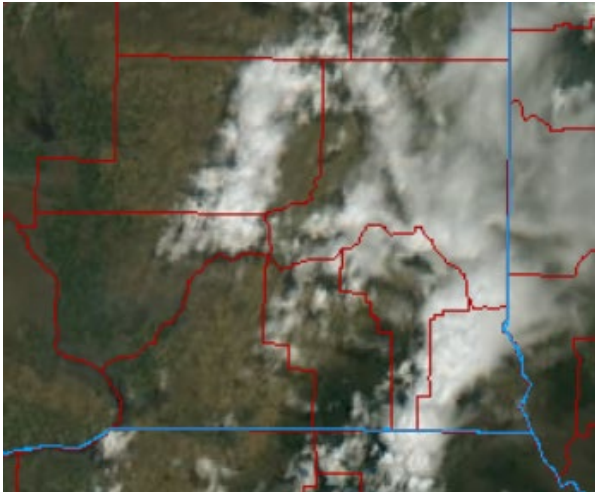
Area where fuel cans and flammable equipment had been staged.

Fire Environment and Weather

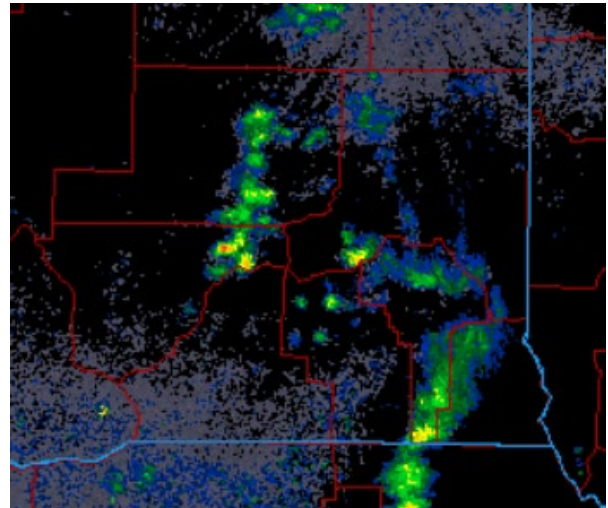
Red Flag Warnings were active due to scattered dry thunderstorm activity in conjunction with hot-dry-windy conditions. On the morning of July 16, the National Weather Service (NWS) Spokane issued the following Fire Weather Forecast products covering the Lyons Ferry Fire area:

Weather observations taken from near Washtucna, Washington, highlight the gusty and erratic nature of the winds across southeast Washington on the afternoon of July 16.

A weak thunderstorm located to the west of the incident likely contributed to the gusty and erratic winds responsible for the burnover occurrence.



Satellite imagery within approximately five minutes of the burnover.



Radar imagery within approximately five minutes of the burnover.

OPERATIONAL IMPLICATION

The NWS Spokane report describes gusty, erratic winds and a weak thunderstorm west of the Lyons Ferry Fire. These conditions, combined with the extreme fuels and increased uncertainty contributed to rapid changes in fire spread and direction.

Regional Fuels and Fire Behavior Context

The Pacific Northwest Fuels and Fire Behavior Advisory in effect before the burnover incident identified earlier-than-normal curing, above-normal fine fuel loading, rapid rates of spread, longer active burn periods, and increased resistance to control. These regional conditions provide important context for the rapid uphill fire growth and narrowing decision space described in this report.

Fuels and Fire Behavior Advisory

Pacific Northwest

Date Advisory Effective – July 14, 2026



Subject: Record low snowpack across the Northwest this winter and recent drought has caused live and dead fuels to cure much earlier than normal. Fire activity is already mirroring conditions normally not seen until later in the season. Recent lightning has been highly efficient, and new starts have been exhibiting rapid fire growth.

Summary:

- Record low snowpack across much of the region has contributed to current drought conditions.
- Drought stressed live vegetation is more combustible and contributes to increased fire behavior.
- Expect more active fire behavior and longer active burn periods. Horizontal fuel loading in eastern Washington is contributing to rapid fire growth when aligned with wind.
- Dry surface fuels allow fires to burn deeper into organic layers, requiring more resources over longer periods to reach containment and control.

Discussion: Winter snowpack across the region was substantially below normal, and when combined with higher-than-normal temperatures and below-normal precipitation, it has accelerated drying across both live and dead fuel classes. Despite the overall dry pattern, multiple rounds of spring precipitation, mixed with periods of above-average temperatures, promoted abundant herbaceous growth across much of the Geographic Area. As these grasses and other fine fuels rapidly cured, they created above-average fine-fuel loading that now supports higher fire intensity, rapid rates of spread, and increased resistance to control, particularly in rangeland and grass-shrub fuel types. Heavy fuels that typically retain moisture into mid-summer are already at critical levels, and live fuels have cured at a faster rate than normal.

Differences from Normal Conditions:

- Under normal seasonal progression, live fuels do not fully cure until later in the summer, and thousand-hour fuels retain significantly more moisture. Heavy, large dead fuels are already fully consuming this year.
- This year's conditions resemble mid-August dryness, with fuels that are normally unavailable for sustained fire spread now actively burning. Riparian areas are no longer reliable barriers to fire spread.

Concerns to Firefighters and the Public:

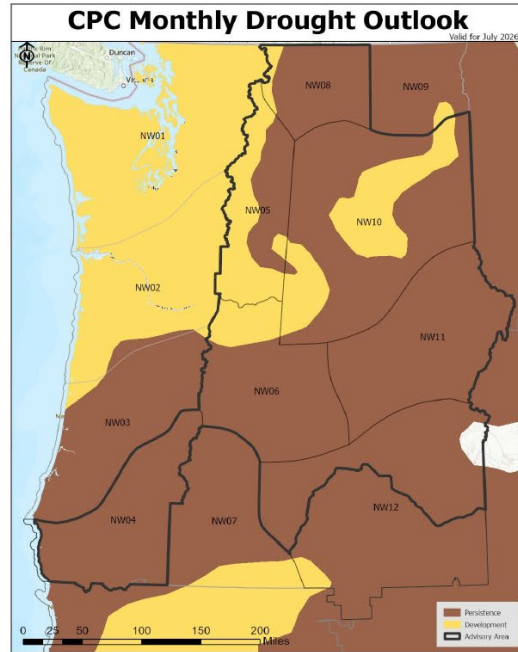
- Early-season extreme dryness increases exposure to rapid fire growth, earlier and more sustained transition to crown fire, long-range spotting greater than ½ mile, and reduced opportunities for control.
- Higher resistance to control should be expected during Initial attack; efforts may be less effective, leading to quicker transitions to extended attack and larger incidents.
- The accelerated fuel curing elevates the risk of early large fires, smoke impacts, evacuation needs, and threats to infrastructure at a time when communities may not yet be fully prepared for peak fire activity.
- Strategies need to account for high elevations being capable of supporting active fire behavior a month earlier than normal with increased potential for long-duration incidents in timbered areas.
- Fine fuel loading in parts of the GA is above normal, contributing to aggressive fire behavior in low elevation rangelands, with sustained winds over 10 mph combined with low humidity.

Issued by: NWCC Predictive Services in conjunction with state and federal partners

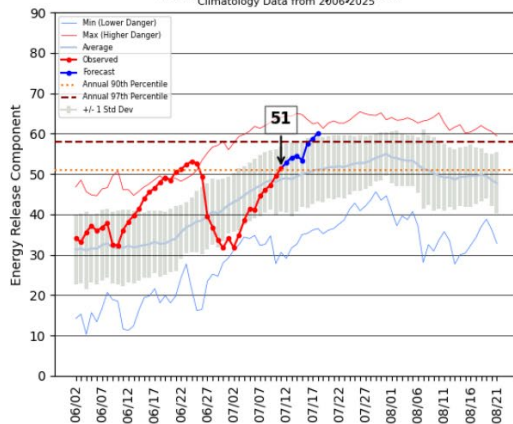
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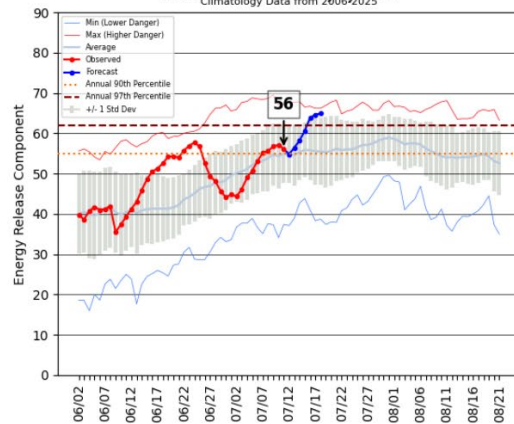
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FEMS ERC-Y for PSA NW11 - NFDRSv4
Last Observation: 11 July 2026



FEMS ERC-Y for PSA NW10 - NFDRSv4
Last Observation: 11 July 2026



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Operational Risk Review

The current NWCG 10 Standard Firefighting Orders, as published in the 2025 Incident Response Pocket Guide (IRPG), PMS 461, were evaluated for their application to this event.

10 Standard Firefighting Orders

Order	Assessment	Marker
#1 – Keep informed on fire weather conditions and forecasts.	Contributed significantly	X
#2 – Know what your fire is doing at all times.	Influenced	X
#3 – Base all actions on current and expected behavior of the fire.	Contributed significantly	X
#4 – Identify escape routes and safety zones and make them known.	Contributed significantly	X
#5 – Post Lookouts when there is possible danger.	Contributed significantly	X
#6 – Be alert. Keep calm. Think clearly. Act decisively.	Contributed significantly	X
#7 – Maintain prompt communications with your forces, your supervisor, and adjoining forces.	Influenced	X
#8 – Give clear instructions and ensure they are understood.	Contributed significantly	X
#9 – Maintain control of your forces at all times.	Contributed significantly	X
#10 – Fight fire aggressively, having provided for safety first.	Contributed significantly	X

Key Standard Firefighting Order Factors

#10 – Fight fire aggressively, having provided for safety first: Before committing a small aviation crew to sustained ground operations, leaders should confirm that the assignment, supporting resources, communications, escape routes, and safety zones are adequate for current and expected conditions. Aerial suppression may reduce visible activity without extinguishing all heat, particularly in light, flashy fuels. This report does not contain enough verified information to determine whether the initial engagement decision itself was appropriate. That question requires additional review of the ordering intent, available resources, and incident organization.

Additional ground resources were limited. Multiple fires were occurring in the county, many local resources were volunteer based, and State Mobilization had been activated to obtain additional resources through the State Fire Marshal's Office. Because this incident was outside DNR-protected lands, DNR ground resources would have required a specific order.

#1 and #3 – Keep informed on fire weather conditions and forecasts; Base all actions on current and expected behavior of the fire: The crew reviewed the fire weather forecast, Red Flag Warnings, weather warnings, storm activity expected from Oregon, and the Fuels and Fire Behavior Advisory. Given the forecasted weather, fuel conditions, and potential for rapid change, additional ground resources were needed to work behind the aircraft.

#8 – Give clear instructions and ensure they are understood: Several communication challenges occurred. Initial contact with the individual believed to be the Incident Commander was conducted face-to-face after landing. The crews determined that RedNet was the only common frequency available in all radios. This communication link was limited after local ground resources relocated to another portion of the fire.

#2 – Know what your fire is doing at all times: Initial face-to-face contact was made with local fire district personnel and information was also obtained from aviation resources. However, terrain, changing winds, the movement of ground resources, and reduced aerial oversight affected the crew's ability to maintain a complete picture of the fire's location and movement.

#7 – Maintain prompt communications with your forces, your supervisor, and adjoining forces: Communication was maintained within the Helitack crew, but reliable communication with incident command and adjoining ground resources was limited. Communications with Air Attack also became unavailable or unreliable during the medical evacuation planning period.

#4 – Identify escape routes and safety zones and make them known: At the time of arrival, the fire appeared stable and was approximately one-quarter to one-half mile from the Landing Zone. The command vehicle and engines could potentially have transported the crew from the area if they remained, but this was not established or communicated as a formal evacuation plan. No adequate ground safety zone had been formally identified and made known.

#5 – Post lookouts when there is possible danger: While aircraft were overhead, they provided additional situational awareness to the ground crew. That advantage decreased when both helicopters departed for fuel. The ground lookout was moving to obtain a better view as fire behavior escalated.

#9 – Maintain control of your forces at all times: The crew understood that only limited local overhead was present on the ground. Due to communications issues, contact with command was lost when the command vehicle and engines relocated to another area of the fire. The area may have appeared secure after helicopter and scooper suppression, but the tactical organization and availability of supporting resources were not clear to the crew.

#6 – Be alert. Keep calm. Think clearly. Act decisively: Personnel attempted to protect or move equipment as conditions worsened. This required time and energy during a rapidly developing threat and reduced the time available to focus exclusively on escape and personal survival.

18 Watch-Out Situations

The 18 Watch-Out Situations were evaluated for their application and contribution to the entrapment.

Watch-Out	Assessment	Marker
1 – Fire not scouted and sized up.	Did not contribute	X
2 – In country not seen in daylight.	Did not contribute	X
3 – Safety zones and escape routes not identified.	Contributed significantly	X
4 – Unfamiliar with weather and local factors influencing fire behavior.	Influenced	X
5 – Uninformed on strategy, tactics, and hazards.	Contributed significantly	X
6 – Instructions and assignments not clear.	Contributed significantly	X
7 – No communication link with crewmembers or supervisor.	Contributed significantly	X
8 – Constructing line without safe anchor point.	Contributed significantly	X
9 – Building fireline downhill with fire below.	Influenced	X
10 – Attempting frontal assault on fire.	Did not contribute	X
11 – Unburned fuel between you and fire.	Contributed significantly	X
12 – Cannot see main fire, not in contact with someone who can.	Influenced	X
13 – On a hillside where rolling material can ignite fuel below.	Did not contribute	X
14 – Weather becoming hotter and drier.	Contributed significantly	X
15 – Wind increases and/or changes direction.	Contributed significantly	X
16 – You are getting frequent spot fires across the line.	Did not contribute	X
17 – Terrain and fuels make escape to safety zones difficult.	Contributed significantly	X
18 – Taking nap near fire line.	Did not contribute	X

Key Watch-Out Factors

5 – Uninformed on strategy, tactics, and hazards: The crew understood its immediate tasks but had limited information about the local jurisdiction's overall tactical plan and whether additional ground resources would be available.

6 – Instructions and assignments not clear: Individual tasks were understood, but the ordering jurisdiction's leader's intent and the overall ground tactical plan were not clearly established for the crew.

7 – No communication link with crewmembers or supervisor: Communication was maintained within the Helitack crew and with aviation resources while aircraft were overhead. Reliable communication with incident command and adjoining ground resources was limited after the helicopter landed and local resources relocated.

8 – Constructing line without safe anchor point: Black can serve as an anchor only when it is tied to a reliable barrier or control line and verified cold. In light, flashy fuels, residual heat can rekindle and compromise an area that initially appears secure.

11 – Unburned fuel between you and the fire: The Landing Zone was outside of the black, uphill from the fire. Therefore, they were exposed to the unburned fuel between them and the active fire. It was difficult to see the fire due to the terrain until they hiked down.

12 – Cannot see main fire, not in contact with someone who can: Aircraft initially provided aerial situational awareness. That advantage decreased when both helicopters departed for fuel. Terrain limited visibility and communications became increasingly constrained as fire activity escalated.

15 – Wind increases and/or changes direction: (See Weather Section.) A thermal low developed in the Columbia Basin, three weak surface pressure troughs were located in the fire area, and a marine push occurred, kicking the thermal low to the east. This led to constantly shifting winds.

17 – Terrain and fuels make escape to safety zones difficult: The grass was high and thick, covering the surface and any existing hazards. This led to one of the injured tripping.

Findings and Lessons Learned

HOW TO USE THIS SECTION

The observations below are framed for facilitated discussion with firefighters, aviation personnel, incident leaders, dispatch, and agency leadership. They identify both effective actions and opportunities to strengthen systems.

Communications

The crew had limited common radio frequency options with local ground resources, making reliable communications difficult to establish and maintain. This report does not confirm that frequency congestion contributed to the turnover event. That possibility should be treated as an open fact-finding item rather than a finding.

Where terrain limits simplex radio coverage (direct, device-to-device communication on a single frequency without using a repeater), incident leaders should consider redundant communication options, including repeaters, human relays, or clearly-identified alternate frequencies. The feasibility of these options may be limited during initial attack when resources are scarce and multiple incidents are competing for support.

The IC could monitor but not transmit on DNR A/G 1. This one-way communication limitation was identified during the initial face-to-face briefing and RedNet was selected as a common channel. The adequacy of radio programming, ordering practices, and dedicated ground-to-air coordination should be evaluated separately before assigning a specific systemic cause.

Escape Routes

The crew's potential escape options included departing by helicopter, moving into established black, or leaving with local ground resources. The helicopter was unavailable while refueling, the nearest black was toward the active fire and not verified as a safety zone, and local engines had relocated without a confirmed transportation or evacuation plan. Escape routes that depend on another resource should be treated as vulnerable and continuously reevaluated as conditions and resource locations change.

Safety Zones

Safety zones must be established and cleared of unburned fuel before resources commit to engaging. When utilizing the black as a safety zone in light flashy fuels, it must be checked and verified as cold, as residual heat can rekindle and compromise a previously, deceptively suitable safety zone.

Deployment

As conditions worsened, time spent protecting equipment and attempting to create additional black reduced the time available for escape and shelter deployment. When personnel determine that they cannot reach a safety zone before fire arrival, shelters should be removed from line gear and made immediately ready for deployment. In this event, the two firefighters reached the only small, cleared area available—but neither deployed shelters before the fire arrived.

Time of Day and Fire Environment

When the crew arrived, the fire was relatively small and burning in light, flashy fuels. Winds were shifting and influenced by the local terrain and forecasted weather. The fire responded rapidly to topographic features by making uphill runs. These conditions developed during the period of increasing daytime heating when fire behavior commonly becomes more active and less predictable. These are all common denominators of fire behavior on tragedy fires.

Daytime heating, drying fine fuels, topographic alignment, and shifting winds combined to produce rapid and difficult-to-predict fire movement. These conditions reinforced the need to reassess LCES and disengagement triggers whenever lookouts, aerial intel, ground support, or communications change.

Discussion Questions for Crews and Leaders

- What specific trigger should prompt personnel to disengage when aerial intel or suppression support is temporarily unavailable?
- How will command, aviation, and ground resources confirm a common communications plan before personnel commit below terrain or outside reliable radio coverage?
- What constitutes an adequate safety zone in light, flashy fuels, and who confirms it remains viable as conditions change?
- How should equipment protection be prioritized when conditions begin to exceed the available escape time?
- What information must be confirmed before an incident medical evacuation plan is considered executable?

CLOSING MESSAGE

The value of this report is not in assigning individual blame. It is in understanding how changing conditions, communication limitations, resource movement, and time compression interacted—and in applying those lessons before the next rapidly developing incident.