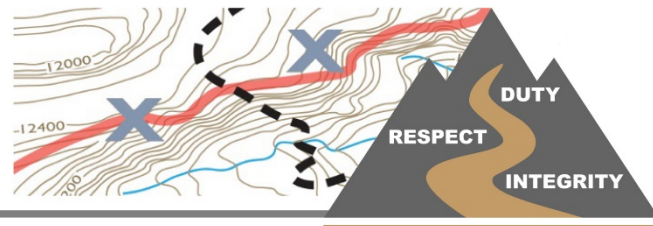


Tactical Decision Games



Wildland Fire Leadership Development Program

BACKFIRE TIMING – BULLDOG FIRE

INITIAL FACILITATOR INFORMATION—NOT TO BE SHARED WITH STUDENTS

Author(s)

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Target Audience

Division Group Supervisors

Training Objective

Given the following scenario, the players should determine the feasibility of a backfire assignment and develop their subsequent plan of action. Players should verbally communicate their decisions to the appropriate individuals.

Resources Referenced

- **1 Division Group Supervisor “Bravo” (Player Role)**
- 1 Operation Section Chief Type 2
- 1 Safety Officer Type 2
- 2 Type 1 Handcrews (Fulton, Alpine)
- 2 Type 2 Contract Crews (Grayback, Skookum)
- 3 Type 6 Engines (BNF E461, E462, E463)
- 1 Type 4 Engine (BNF E401)
- 1 3,000-gal. Water Tender
- 1 “Bulldog” Air Attack

SCENARIO INFORMATION TO BE SHARED WITH STUDENTS

Facilitator Briefing to Student(s)

You are Division Supervisor “Bravo” on the Bulldog fire.

Weather:

The Henry Mountains, a normally dry mountain range, are in the fifth year of a severe drought. From June 1 through July 7, only .10” of rain fell in Hanksville and surrounding areas. This is less than half the normal amount for this time period. This dry weather pattern continued over the fire area. The fire received no measurable rainfall during July 8-12 period. A strong ridge of high pressure dominated the weather pattern across the Great Basin and Four Corners. This high-pressure ridge was not only responsible for the very dry airmass, but also the culprit in producing all time record high temperatures during the fire. Climate records in Hanksville dating back to the early 1900’s were tied or broken several times during the fire. The all-time record high temperature ever recorded at Hanksville was tied at 114 degrees.

The wind patterns were from a westerly direction on the 10th and continued through the 12th. Red Flag conditions were observed on parts of the fire on the 12th. Eye-level winds of 20-30 mph occurred on Copper Ridge with gusts in excess of 30 mph during the morning hours of the 13th.

Relative humidity for the period of July 10-12 was very low. Afternoon minimums were observed in the 5-10% range with very poor nighttime recoveries of 15-25%.

Fuels:

A protracted severe drought has been persisting throughout all of Utah for nearly six years. Record high temperatures (114 degrees at Hanksville on July 11th) contributed to excessive dry fuels.

- 1000-hour TLFM: 3-7% (context: kiln dried lumber is 15-19%)
- 1-hour TLFM: as low as 1%
- 10-hour TLFM: as low as 2%
- 100-hour TLFM: as low as 3%

Of critical importance is the live fuel moisture content recorded around the area:

- Juniper: 60-80%

Comparable live fuel moisture in the oak brush, pinion trees and other fuels showed plants in near winter dormancy.

Topography:

The Henry Mountain range encompasses approximately 200,000 acres. The area included the full range of slopes and aspects ranging from 6,000 to 11,000 feet.

Fire Behavior:

In general terms, from July 8th through the evening of July 12th the fire behavior was pretty much in the “third dimension,” with blow-ups, plume dominated fire/s, reverse slope/cross slope and major up-slope runs, short and long range spotting, extreme burning conditions at night, fuel driven down slope runs against diurnal winds during the day, active crown fire and very large fire whirls. The only extreme fire behavior condition not observed was a horizontal roll vortex.

Previous Shift: (July 12th Day Operational Period):

Initial Strategy - put all resources on Benson Road to prep and burn out. Upon arrival on scene it was discovered that fire has crossed the Benson Road at Stanton Pass. Fire has become well established in Cass Creek drainage and was moving up Mt. Hillers. There was no chance of catching the slopeover; strategy was reevaluated. The new strategy was to locate and protect structures within fire perimeter. Division Bravo was assigned Cat Ranch and Star Springs subdivision. Crews begin prepping structures by reducing fuels adjacent to structures, and wrapping with structure protection wrap.

July 13th 1200 Day Operational Period:

Fire made significant runs during the night of the 12th from Mt. Hillers to Big Ridge and came within 2 miles of Cat Ranch and the structures in Star Springs.

Strategy - Finish structure preparation at Cat Ranch and Star Springs subdivision. Set up fold-a-tank with Mark III pump, hoselay and sprinklers around Cat Ranch; use 3,000 gal. water tender to fill tank. Division Supervisor Bravo, OSC2, SOF2, and Alpine IHC Superintendent are scouting the two-track road leaving Cat Ranch to the southwest to initiate a backfire at 1300. After scouting, it is agreed that with favorable upslope winds and the main fire backing down Big Ridge that conditions are “perfect” to conduct a burn along the road between the fire edge and ranch to slow fire’s progress. The area to be lit is approximately two miles from Cat Ranch and encompasses 4,000-6,000 acres. It was also found that the two-track was a 4WD road with limited access in moving vehicles in and out of the area.

After briefing Skookum Type 2 Handcrew, and all engines that morning you assign them to Star Springs subdivision to finish structure and burnout preparations. The resources are comfortable with the assignment, LCES is in place and you are comfortable without oversight for the time being at Star Springs because of the sparse fuel loading at Star Springs and the extreme elevation difference between Mt. Hillers and the subdivision.

Take 5 minutes to decide your course of action and prepare any communication contacts you think are necessary.

ADDITIONAL INFORMATION FOR FACILITATOR ONLY

Facilitator “Murphy’s Law” Suggestions

The “Murphy’s Law” suggestions listed below can be added as what-ifs at any time during the scenario to raise the stress level of the leader. You can also use one of your own:

It is important that the three what-ifs are incorporated within five minutes once the facilitator starts with the first one.

- The lead lighters that are interior, get several hundred yards ahead of the lighters and holders on the road.
- The IHC Superintendent informs Division that the drip-torches being used to burn off the road run out and need to be re-fueled.
- Air attack has a mechanical problem and needs to go back to the airport in Hanksville.
- The wind changes from burning up-slope toward Mt. Hillers to down-slope. The fire crosses the road in two separate areas: one between the lead lighters and lighters on the road, and secondly, between the lighters on the road and the holders in the back.

These two can be incorporated simultaneously once the player has “closed the loop” with the first four what-ifs.

- One of the lead lighters cannot be accounted for.
- Air Attack arrives on scene and wants an update.

These can be incorporated simultaneously once they have mitigated the above what-ifs.

- With extreme fire behavior witnessed, both the Cat Ranch and Star Springs subdivision are being threatened.
- Crewmembers at Star Springs are concerned because the fire has made a significant run toward them. They also want oversight if a burn is to be conducted.

Facilitator’s Notes

The focus of this TDGS is on offensive versus defensive strategy selection. The facilitator needs to spend some time familiarizing themselves with the topography and the scale of the division. The area to be burned is 4,000-6,000 acres and this is a “perfect opportunity” to take an offensive strategy instead of staying defensive.

For this seminar it is important to keep the Division Supervisor limited on the amount of resources that he/she could use to perform the burnout. This was designed to have one crew (IHC) conducting the burn with oversight from the Division Supervisor and Operations Section Chief. The road used to initiate the burn is only wide enough for 4WD vehicles and limited personnel. Remember that this Division is miles long and it takes several hours to drive from Cat Ranch to Star Springs subdivision.

The Division Supervisor has a large amount of firing equipment available to them: 15 drip torches (full), 30 gal. fuel (already mixed), 6 very pistols, 2’000 hotshot flares, 30 stubby rounds, and 25 2” hand toss grenades.

This simulation can evolve into many things. The purpose is to continue the development of your leaders by practicing intuitive instead of analytical decision-making. During the AAR items for discussion may also include:

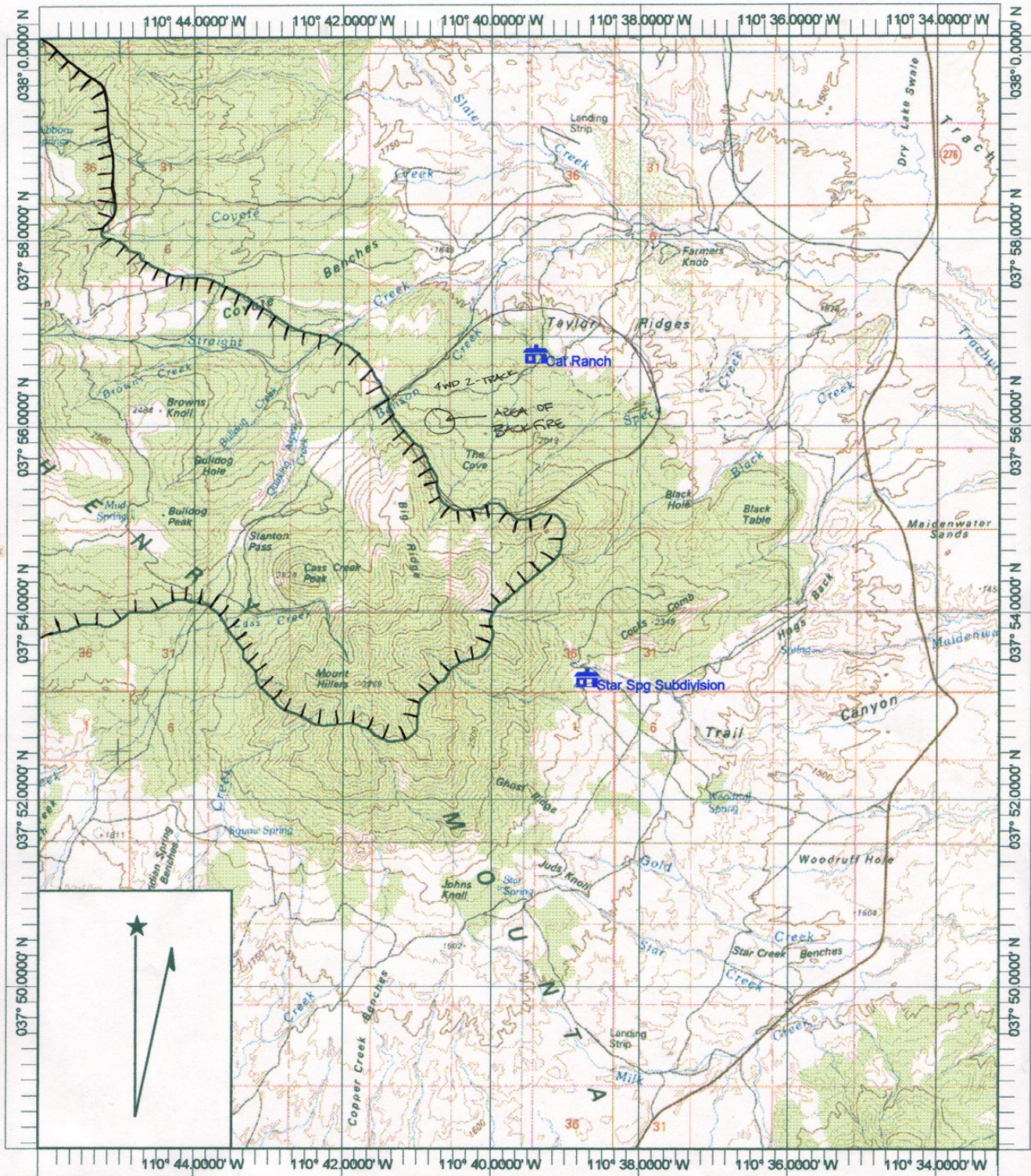
- How well was the commander's intent communicated to the assigned resources?
- Did the Division Supervisor delegate responsibility and use good decision-making skills?
- When a lead lighter was unaccounted for, how was it mitigated?
- How did the Division Supervisor handle the situation at Star Springs when the crewmembers became concerned at the fire making a significant run toward them?

After Action Review

Conduct an AAR with focus on the training objective. Use the AAR format found in the *Incident Response Pocket Guide* to facilitate the AAR. There are four basic questions in the AAR.

1. What was planned?
2. What actually happened?
3. Why did it happen?
4. What can we do next time?

TDGS shouldn't have a single solution, keep the focus of the AAR on what was done and why.



Name: HITE CROSSING
 Date: 11/17/2004
 Scale: 1 inch equals 1.578 miles

Location: 037° 54.2316' N 110° 39.6165' W
 Caption: Bulldog Fire Perimeter
 Division Bravo

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Bulldog Fire