

# Staff Ride

## Resources



Wildland Fire Leadership Development Program

## 1990 Dude Fire – Facilitators Field Reference, March 2008

**Note to Facilitators:** This is a suggested format. Do not feel limited by the identified stands or discussion items. It is provided as a word document so that users may adapt and revise it to fit their specific audience, objectives, and time demands.

### Significant Lessons / Contributions:

- Transition/transfer of command protocols
- Development of LCES as a safety guideline
- Cultural impacts on communication and cooperation between resources
- Knowledge of plume dominated fire behavior
- Increased focus on use of indicators for anticipating fire behavior
- Implementation of more realistic fire shelter training guidelines

### Staff Ride Difficulty Rating:

#### Physical

- Light to moderate for all stands, 1-4.
- Bottom elevation: 5500 ft
- Top elevation: 6000 ft

Travel between most stands is predominately gradual up and down pitches. Stand 1 is a flat, open area adjacent to the Control Road ~which requires a short walk from the quarry up the road across the Control Road. The walk up the power line from stand 2 to the Bonita subdivision is the most arduous walking travel of the site visit. Hiking within Walk Moore Canyon from parking area to Stand 2 and from Stand 3 to Stand 4 is generally rolling terrain with periodic uneven rocky areas. Hiking within Walk Moore Canyon will be along old dozer line and jeep roads. The dozer line and jeep trail has been degraded from erosion making hiking on rocky uneven ground. Hiking within the Bonita subdivision will be on gravel road with occasional slopes.

From the parking lot at the mouth of Walk Moore Canyon, following the recommended route up the power line, around to the top of Walk Moore Canyon, through Bonita Creek subdivision, to the Corner House, and back down Walk Moore Canyon to the parking lot is approximately 2.8 miles.

## Logistics

**Moderate** – Key factors are knowledge of road systems to access Dude Fire area and within Bonita Creek subdivision. Refer to maps and directions. Parking is limited at Stand 1, parking to access Walk Moore Canyon, and within Bonita Creek subdivision at Stand 3. The staff ride has a primary route of travel and stops; however an alternate route is highlighted in maps included with this package. Should the alternate route be used group size and parking must be assessed. If the alternate route is used, parking is limited due to private property limitations.

Travel from Payson to Bonita Creek Subdivision is on primarily paved surfaces. The road becomes dirt at the junction of Houston Mesa Road (FS road 199) and FS road 64 (Control Road). The Houston Mesa road does cross multiple wet crossings however water levels are generally 3-6 inches deep. Vehicles with high clearance are recommended. When parking at the Stands, leave a card in the vehicle windshield with date/time/itinerary/# in group/etc.

Participants should bring food and water in a day backpack. It is suggested that participants break for lunch along the route. Because of the possible extreme temperature fluctuations which can be experienced in the local area thru out the year, participants should prepare for inclement weather including hot and dry conditions. A cooler with ice, water, and Gatorade would be recommended during the summer months.

## Hazards

**Vehicles** – Due to the proximity of the Bonita Creek subdivision and potential for traffic, practice proactive vehicle safety while in the area. Lights on for safety, and be courteous to other drivers. Due to washboard conditions in some areas of the dirt roads, slow down as needed. When inclement weather is forecast, ensure that vehicles are maintained properly and equipped with safety items which include chains or snow tires.

**Terrain** – Terrain is rolling and too steep in some areas with loose rock in places. Footing may be uneven. Vegetation is often dense and brushy. Sturdy hiking boots and long pants and long sleeve shirts are recommended.

**Other users** – All road systems are accessed by both home owners and forest visitors and traffic can become heavy at times. The area of the Dude fire is a popular recreation area year round. Hiking areas may be accessed by forest visitors and local home owners. Foot travel between Stand 2 and the Bonita Creek subdivision runs below a power line with travel adjacent to private lands and within private lands when accessing the subdivision. Care must be taken in recognition of being within private lands and inherent issues such as pets, traffic, and local residents.

**Weather** – The area is within an arid desert environment - hydration is key. Be prepared for all types of weather which may occur year round, including snow. Be sure to bring sunscreen and insect repellent as needed. Given the nature of the terrain (Mogollon Rim), storms can appear quickly. Lightning is common with accompanying thunderstorms. Check weather forecasts prior to your trip.

**Snags** – There are dead trees scattered in the burn area, with none posing an immediate threat along the trail. Be aware of the potential for snags to come down without notice if hiking outside of travel routes. Hard hats are optional.

**Rocks** – Rolling rocks and debris in the area can pose a hazard. Wear good hiking shoes, with good socks adequate for hiking and watch your footing.

**Animals** – During the spring, summer and fall, rattlesnakes are known to inhabit the Dude Fire Staff ride area and may be active during staff ride timeframes. Bears and other wildlife also utilize the area but are not of significant concern. Please do not leave any food or trash in the area.

## Stand 1 – Control Road Overview

### Maps

Travel Map

Topographical Map with stand locations & GPS coordinates

### Visual Aids (Recommended)

Photo of 1990 Mogollon Rim vegetation

### Travel Directions

GPS coordinates (WGS 84), parking at Stand 1:  $34^{\circ}22.343' \times 111^{\circ}14.615'$

GPS coordinates (WGS 84), Stand 1:  $34^{\circ}22.478' \times 111^{\circ}14.525'$

#### From Payson:

- Travel north on Highway 87 approximately 1.8 miles to Houston Mesa Road.
- Go right/east 10 miles on Houston Mesa Road to Control Road (FR64).
  - Note that the Houston Mesa Road will pass through a car gate.
  - There is a sign, which says 8 miles to Control Road (FR64).
- Go east 2.8 miles on Control Road (FR64) to Stand 1 parking, turn right into the parking area.
  - The Control Road is a dirt road – have high clearance vehicles.

#### From Heber:

- Take Highway 260 west approximately 37 miles to Tonto Village.
- Go right/north 1 mile to Tonto Village.
- At Tonto Village there is a sign, go left on gravel road (Control Road/FR64).
- Go west 9.4 miles on Control Road to Stand 1 parking, turn left into parking the parking area.

From parking area to Stand 1: walk to the north side of Control Road (FR64) across from the parking area. The stand is located at a flat campsite, which can be utilized for groups as large as 50 participants. The hike is less than 200 yards back up the parking road, east along the Control Road to Stand 1. The location provides an overview of Dude Fire area.

## **Terrain Orientation**

View of Dude Fire

Point of Origin

Walk Moore Canyon

Bonita Creek Subdivision

Mogollon Rim

## **Facilitator Notes:**

## Background Information

June 1990 proved to be one of Arizona's hottest months in recorded history. Temperatures reached record or near-record highs for the days just prior to June 26—the day of the Dude entrapment. On this day, the temperature climbed to a record 122 F in Phoenix and 106 F in nearby Payson (10 miles south of the Dude Fire). An extended period of drought combined with these temperatures to produce critically high fire danger throughout Arizona. Furthermore, below normal precipitation had occurred the previous six months. At Payson, June precipitation was only 40% of normal. In fact, general drought conditions had persisted for three years.

Local personnel knew of the conditions of the fuels and what fire behavior could be exhibited. The Bray Fire which occurred only a few miles west of the Dude two weeks prior ran from the highline trail to the top of the rim in 4 minutes.

At the onset of the Dude Fire, strong high pressure persisted over Arizona. Record high temperatures with 10-15% humidity were observed and forecast in the Dude Fire Area. While atmospheric moisture over the state was quite limited, enough did exist to threaten some thunderstorm activity over the mountainous areas, including the Rim Country north of Payson. The topography of the Mogollon Rim provides a favorable forcing mechanism which contributes to the development of thunderstorms when the convective environment is favorable.

The fire occurred in the third year of a drought. The southwest area Severity chart showed that the five-day mean Energy Release Component was in the extreme range. Heavy fuels and ground fuels were very dry. The national fire danger rating system fuel moisture values at a nearby station for June 26 were 1 hour =3%; 100 hour =6%; 1000 hour = 8%.

At 1155 on June, 25, Wayne Stutzman, a resident at the old Cowan Ranch about 2 ¼ miles Southwest of the origin heard one clap of thunder. Two more claps were heard closer at 1224. By 1230 ashes were falling on his deck. He reported the fire to the Whispering Pines Fire Department because the line to the Forest Services was busy. Before 1300 he and Al Kendall drove and hiked into the fire arriving before 1400 with tools to fight the fire. The origin of the fire was on a steep southwest slope at approximately 6400 feet. The Mogollon Rim crest is located 1/2 mile northeast and 1000 feet above the point of ignition. Below the origin the slope becomes more gradual, falling off to about 5600 feet in two miles to the south. (The entrapment site in Walk Moore Canyon is located approximately 2.5 miles south of the fire's origin at approximately 5560 feet.) First reported to the Forest Service at 1315 and sighted from the air at 1330 it was reported at that time at an estimated size of 5 acres. The fire was approximately 10 acres by the time Stutzman and Kendall reached the fire at 1400. An air tanker was present and the Payson Helitack crew also arrived. Stutzman and Kendall worked around the fire for approximately 2 hours. They then walked back to Dude Creek to get a drink and rest. They met Jeff Prevey, Pleasant Valley Hotshots near the creek. The first ground crews began arriving on foot as they had parked their trucks where the creek crosses the road. Once resources began to arrive the local citizens left the area.

An hour later, torching and making short runs, the fire had grown to 50 acres. At 1500 a Type II Incident Management team was ordered. By 1515 the fire was approximately 100 acres. At 1615 a spot fire was sighted approximately one mile east of the main fire. The helicopter made five bucket drops and the tanker dropped 2 loads of retardant on the spot without success.

At 1730 Gila County Sheriff's Department evacuated the 58 residence Bonita Creek Estates subdivision.

By 1800 additional resources beyond the three local Payson initial attack resources, had been ordered including 18 crews (360 firefighters). The Type II IMT was on the fire. Prior to dark, resources consisted of: six air tankers; two helicopters; three lead planes. On the top of the Rim, seven engines, one dozer, and two water tenders were available. In addition, two strike teams of size engines each had been sent to the fire.

Around 1930 the 20-person Perryville inmate crew arrived at the Payson Ranger District on June 25<sup>th</sup>. Larry Terra was the Perryville Crew Supervisor and a Fire Safety Coordinator. Dave LaTour was ordered as the Crew Representative for the crew and met Terra at the Ranger station upon arrival. LaTour had previous crew rep experience with this crew and was qualified as a Task Force Leader and was working on his Division Supervisor qualification, but was not carded as such yet. The crew was under contract with the Arizona Division of Forestry. They were instructed to eat and report to Base Camp. Following dinner, they were redirected to the Bonita Creek Estates subdivision on the fireline.

At 2105 a Type I IMT was ordered. This team received a Line Officers briefing at 0430 on the 26<sup>th</sup>. It was decided that the Type I team would shadow the Type II team from 0600 to 1300 and take the fire at 1300 on the 26<sup>th</sup>.

The Tonto Fire Net used by the Type II team had heavy use, making communication very difficult. The use of multiple undesignated frequencies resulted in the lack of communication between line personnel and overhead.

At 0100 (June 26) Perryville arrived at the Bonita Creek Estates subdivision. Shortly afterwards, they were moved again to the Junction of Walk Moore Canyon and the Control Road. They arrived there at 0230.

The Perryville Crew had been at the Doce Fire from June 13 to 16 on the Prescott National Forest. They had been assigned night shift the first night and were reported to dig line all night and did very well. Comments made by the Bray Fire IC stated that the Perryville crew was well behaved, motivated and trying to get Hotshot status. For them this was another fire where they could prove themselves and work with the type of resources with whom they were trying to gain respect and status as part of that group. Little did they know that they were already part of a tragic chain of events which would entrap 11, critically burn one and kill 6, and put a tragic twist on an already significant incident before the day was over.

## **Handout and Facilitate Tactical Decision Game #1 or Discussion Point #1**

## Stand 2 – Power Line Junction

### Maps

Topographical Map with stand locations & GPS coordinates

Perryville Crew Movement Map

### Visual Aids (Recommended)

Photo representative of 1990 fuel conditions

### Travel Directions

GPS Coordinates (WGS 84), parking at Stand 2: 34°22.224' x 111°42.170'

GPS Coordinates (WGS 84), Stand 2: 34° 22.516' x 111° 14.016'

From Stand 1: Continue east on FR 64 approximately .7 miles – turn left into developed Dude Fire Interpretive Memorial parking lot and park vehicles for Stand 2.

At north end of parking lot is a Memorial/Interpretive sign and trail to access Walk Moore Canyon. Hike north in Walk Moore Canyon .5 miles along jeep trail to junction of power line and Walk Moore Canyon.

### Terrain Orientation

Junction of Walk Moore Canyon & Control Road (FR 64)

Junction of Power line & Walk Moore Canyon

### Facilitator Notes

## Background Information

At 0230 Perryville met with Division Supervisor Dale Ashby at the Control Road and Walk Moore Canyon Junction. Ashby told LaTour to anchor to the Control Road and construct line up the jeep trail. Ashby and Tim Short, Field Observer scouted the route of the jeep trail and across the power line to the subdivision. They flagged the route as they went.

The Perryville Crew began clearing a fireline up the jeep trail inside Walk Moore Canyon and then up the power line right-of-way into the Bonita Creek Estates subdivision. Prescott IHC assisted Perryville with the power line later that morning and then with securing the houses.

By 0300 (June 26), the main fire was within one-quarter mile of the Bonita Creek Estates structures. Engines moved into position to make a stand. A person watching the fire from the Bonita Creek Estates subdivision for one hour beginning at 0200 noted that the falling embers quickly grew to spot fires. He watched the fire move in and out of the crowns. It would run for 60-90 seconds, die down for 5-10 minutes, and then run again. The fire would spot, start new fires, and then the main fire would catch up to these spot fires. The brisk down-canyon winds continued to push the fire to approximately 500 acres by 0500. At this time the winds subsided and the fire lay down – keeping it away from the Bonita Creek Estates structures.

Prescott IHC left at approximately 0430 to perform a burnout operation around the subdivision. Perryville arrived at the subdivision at 0500.

By 0600 on June 26, 1990 the fire was estimated at 1900 acres.

Perryville worked in the subdivision until around 0930, they ate and following lunch they were directed to improve dozer line, working back down Walk Moore Canyon toward the Control Road where they had started. (by this time, the jeep trail had been bladed by a dozer.)

Crew locations were as follows: lowest and closest to the Control Road, was the Navajo Scouts Crew, then the Perryville Crew, the Alpine IHC was 50 to 100 yards above Perryville, the Prescott IHC was above Alpine near the corner house, then the Flathead IHC above Prescott, next was the Zig Zag IHC, then the Redmond IHC, and finally the Plumas IHC. By 1215 the hotshot crews finished the prep work at the corner house and the Plumas IHC began burning out the line. At this time, the main fire was backing slowly down the slope. Several instances of short-range spotting from the burnout occurred from 1100-1300. Because of the fire behavior, the burnout was stopped.

## Handout and Facilitate Tactical Decision Game #2 or Discussion Point #2.

## **Additional background information to discuss prior to leaving stand 2.**

At 1230, Louis Sorrell, Crew Boss of the Navajo Scouts 2 Crew and Dave LaTour, Crew Representative for the Perryville Crew, exchanged fire status, weather conditions, watch outs and escape route information. Sorrell says that at this time his crew still had no communications with outside forces, solely among his crew and the Perryville Crew.

By approximately 1300, the Perryville Crew, now located approximately one-third down Walk Moore Canyon, ran out of drinking water. Crew Boss Larry Terra took crewmember Fred Hill left the fireline to get supplies, leaving Assistant Crew Boss Sandra Bachman in charge with the Crew Representative LaTour. Soon after, an ATV driven by a Forest Service employee delivered water up Walk Moore Canyon. The crew then gathered around the water supply to refill canteens. They were approximately 3300 feet from the Control Road.

**Handout Tactical Decision Game #3 or Strategic Discussion Point #3 prior to leaving Stand 2.** Tell participants to have their responses ready when they arrive at Stand 3.

## Stand 3 – Corner House Vista

### Maps

Topographical Map with stand locations & GPS coordinates

Rate of Spread Map

Crew Location Map

### Travel Directions

GPS Coordinates (WGS 84):  $34^{\circ}22.913$  x  $111^{\circ}13.456$

#### From Stand 2:

- From Stand 2 travel east beneath power line 200 yards until meeting the corner of the fence line. Cross the gate in the fence (running north and south) and continue east along the south side of fence on USFS land. Continue east along fence line, .2 miles until the junction with Bonita Creek Road. Travel 200 yards to Myrtle Point Trail Road.
- Go left on Myrtle Point Trail (Memorial location) approximately 200 yards to Burnt Joint Road.
- Go left on Burnt Joint Road 200 yards to Big Al's Run.
- Go right on Big Al's Run less than 200 yards to unnamed road junction and go left.
- Stand 3 is located in this area in the vicinity above the log house (*Corner House*) on corner of subdivision.
- Travel from Stand 2 will begin along a short steep pitch to the mesa on which Bonita Creek subdivision is located. Travel path will be through rocky brushy terrain until connecting with Bonita Creek Road (FR 1210) road. It is important to stay on USFS lands until the fence meets Bonita Creek Road.

#### Alternate Route (vehicle):

- From Stand 2 parking lot, travel east on Control Road (FR64) .4 miles to Bonita Creek Road (FR 1210).
- Go left on FR 1210 .5 miles to Myrtle Point Road and go left.
- Dude Fire Memorial site is on left side of road.
- From the memorial location on Myrtle Road travel 200 yards to Burnt Joint Road and go left.
- Go left on Burnt Joint Road 200 yards to Big Al's Run.
- Go right on Big Al's Run less than 200 yards to unnamed road junction and go left.

### Terrain Orientation

Head of Walk Moore Canyon

Safety zone northeast of corner house about 200 yards

Overview of subdivision

## Facilitator Notes

**Facilitate Tactical Decision Game #3 or Discussion Point #3 prior to proceeding with stand orientation.**

### Background Information

At approximately 1330, it was discovered that Bonita Creek Estates was surrounded by fire and resources could not leave. Two dozers were then directed to build a safety zone within the burn-out which remained very hot from heavy fuels burning. At 1345 a spot fire was reported below the Control Road on the west side.

At 1400 the Alpine IHC weather observations recorded 87 degrees and 21% RH. At approximately 1410, JP Mattingly, Alpine IHC Superintendent programmed the tactical frequency into LaTour's radio that was being used by the Type I IMT.

Large drops of icy cold rain were felt by crews, and briefly mistaken for water from the engine hoses used for structure protection. Tony Sciacca, Foreman of the Prescott IHC, noticed that smoke was beginning to settle at the feet of the crews, this made him uncomfortable and decided to pull their crew out and into the safety zone. They walked past Alpine on the way to the safety zone and told Alpine crewmembers they were pulling out. Prescott was the first crew in Walk Moore to reach the road at approximately 1415, just minutes after Perryville Crew had resupplied with water and returned to work just off the dozer line, the Navajo Scouts lookout noticed the wind shift change to the east and the fire began to crown. The Navajo Scouts began running back down the line toward the Control Road. A member of the Navajo Scouts yelled at Perryville members as they ran past to "Get out!" The Perryville Crew was physically divided into a lower and upper group. (Upper group: Dave LaTour, Donald Love, Geoffrey Hatch, Sandra Bachman, James Denny, Curtis Springfield, James Ellis, and Alex Contreras. Lower Group: Joseph Chacon, Gregory Hoke, Derrick Guy, Norman Enriquez, Robert Carillo, Patrick Flippen, William Davenport, Tim Smith, Glen Harder, and Steven Pender.

## Stand 4 – Entrapment Site

### Maps

Topographical Map with stand locations & GPS coordinates

Deployment Location Map

### Visual Aids (Recommended)

Fatality site photos

Set up fire shelters with deployment stakes (White) and fatality stakes (Red) and/or Nomex clothing as visuals prior to bringing the group to Stand 4.

Fire shelters and stake markers are cached at the fatality site immediately above trail. Look up-hill under the juniper tree.

### Travel Directions

GPS coordinates (WGS 84): 34°22.689' x 111°13.927'

#### From Stand 3:

Travel southwest .5 miles down Walk Moore Canyon to Stand 4 (deployment/fatality markers). Travel will begin along east aspect of Walk Moore Canyon and join a jeep trail in canyon bottom. This will lead directly to deployment/ fatality area. Once on location, there should be markers set up in advance.

Travel will be on gentle slopes with uneven rocky surface. Vegetation is shrub, pinyon and juniper.

### Terrain Orientation

Walk Moore Canyon

Fatality site

Deployment site

### Facilitator Notes

## Background Information

Upon hearing and seeing the Navajo Scouts crew running past them, Perryville crewmembers started seeing the fire above them. They all began running down the line toward the Control Road. They were throwing fusees from their packs as they ran. Guy stopped to help Harder remove fusees from his pack. Smith and Harder tried to pull their shelters but never did and were impeded from opening the shelter pouches by a pack full of fusees and by gloves. Carrillo was running with his saw and had to stop a couple of times to pull up his chaps. Flippen took the saw from him so he could hold up his chaps to run faster. Carillo stopped, but a Navajo Scout told him “don’t stop, the flame is on you”. LaTour and Denny had grabbed water cans to carry them out. Smith and Harder saw Bachman fall down and Denney help her up. Carillo looked back at that point and saw behind Flippen what looked to him like a volcano. Flippen looked back and could see only a wall of flame. Hoke was cut off about 1422 while running down with Contreras right behind and above him. Then he saw the crewmembers in front of him round a corner with fire crossing right behind them. Hoke turned and saw fire cross between he and Contreras. The fire came over Hoke who discarded his pack, moved about 10 paces away from it because there was fuel in it and Hoke deployed there. The wind almost blew Hoke over as he lay in his shelter. Contreras and the others turned back up, LaTour, and Love were the furthest up and were above Davenport. LaTour ordered the Perryville crew to deploy shelters. He reported on the radio that Chacon deployed and Denny helped Bachman deploy. LaTour proceeded up another 15 yards and deployed. Hatch, Denny, Contreras, Bachman, and Ellis deployed just below LaTour.

## Hand out and Facilitate Tactical Decision Game #4 or Discussion Point #4

## Recommended Integration Location - Ellis' Cross

### Maps

Fire Progression Map

### Visual Aids (Recommended)

Fatality Stake (Red)

### Travel Directions

GPS Coordinates (WGS 84): 43° 22.35' x 111° 14.038'

#### From Stand 4:

Continue back down Walk Moore Canyon past Stand 2 toward the parking area to Ellis' cross that is adjacent to trail. Actual site of fatality is in what is now the eroded creek bed that has formed.

### Terrain Orientation

None needed

### Facilitator Notes

### Background Information

Ellis traveled from his initial deployment site down canyon, then went back up canyon, met others coming down, and was escorted back down canyon with Latour, Davenport, and Love to this location where he exclaimed "I'm dead" then laid down and expired.

### Conduct Integration Phase of Dude Fire Staff Ride