

INVESTIGATIVE REPORT OF THE
EAGLE BAR FIRE
SHELTER DEPLOYMENT INCIDENT
AUGUST 25, 1988

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I. OVERVIEW

At about 2210 hours on August 25, 1988, there was a shelter deployment of the Umatilla Regular Forest Service Type II Crew and two Overhead personnel. The deployment took place below and about one-quarter mile northwest of Kinney Point on the Eagle Bar Fire, Payette National Forest in Region 4.

There were no serious physical injuries although one individual of the Umatilla Crew sustained a small burn on the calf of his leg.

Those involved in the actual shelter deployment were:

Umatilla Crew, 20 Individuals
Division Supervisor, Corner Division
Strike Team Leader, F Division

Deployment of shelters ended at about 0345 hours on August 26, 1988.

The following are a list of people associated with the deployment:

OVERHEAD

John Russell, IC
Stan Palmer, Safety Officer
John Madden, Planning Section Chief

LINE

Floyd De Witt, Division Supervisor, Corner Division
Ron Barrett, Division Supervisor, G Division
Tony Casmaro, Division Supervisor, F Division
Tom Weinman, Strike Team Leader, F Division
Rich Dahl, Strike Team Leader, G Division
Pepper Martin, Strike Team Leader, F Division

CREWS

Nancy Rancken, Crew Superintendent, Umatilla Crew, F Division
Gordon Brazzi, Crew Superintendent, Chico Max Crew, Corner Division
Mark Twain #4, F Division

"I was with Gene Chournard most of the evening and all night after Deployment by the Umatilla Crew." -- Gordon Brazzi

II. ACTION TAKEN

On Friday, August 25, 1988, a Forest Service team was assembled to investigate a crew burnover and multiple shelter deployment incident that occurred on the Eagle Bar Fire in the Hells Canyon area of the Payette National Forest in Idaho. The investigative team was comprised of:

Joseph Kinsella, Fire Operations, USDA Forest Service, Regional Office, Ogden, Utah;

Lou Waikart, Timber Management, USDA Forest Service, Regional Office, Ogden, Utah;

Hank Walters, Regional Safety Officer, USDA Forest Service, Regional Office, Ogden, Utah;

John Hooper, District Ranger, McCall Ranger District, Payette National Forest, McCall, Idaho.

The Investigation was conducted August 26-27 and included on-site visits with the overhead team. Both burnover sites were visited by the team. The team overflew shelter deployment areas by helicopter prior to initiating the on-site investigation. The team walked to the areas and photographed sites where crews were located just prior to the shelter deployment. Division Supervisor, Tony Casmero, accompanied the team on the field inspection to relate the events leading up to the shelter deployment. Later, the team met with the Umatilla Crew both as a group and individually with those who wished to discuss the incident. Taped recordings of those interviews are on file.

"I had no idea this had occurred." -- Gordon Brazzi

EAGLE BAR SHELTER DEPLOYMENT

AUGUST 25, 1988

PAYETTE NATIONAL FOREST - MCCALL IDAHO

At 0007 on August 26, I was called by Incident Commander, John Russell, and was notified of a shelter deployment which was still in progress at the time. The Eagle Bar Fire was fanned by strong nighttime winds and made a major run covering over a mile, with spotting beyond that, at the head of the fire near the head of Sawpit Creek and Kinney Point in "Hells Canyon" on the Idaho side of the Snake River.

*** THERE WERE NO SERIOUS PHYSICAL INJURIES!!!!!!*** There was one individual, Jimmy Turner from the Umatilla Regular Crew, who sustained a quarter to half-dollar size burn on his calf. Four other individuals are presently being brought to the McCall Memorial Hospital for a precautionary physical examination by a doctor for smoke inhalation.

**All individuals involved in the deployment incident will be fed and returned to McCall for two days of R&R and counselling with a trauma expert. One other individual from another crew working the night shift, but not involved in the deployment, will also accompany the group because of being seriously upset by the incident. There possibly may be others.

**The trauma expert will also be sent to the ICP and incident base to counsel the IC and his staff and others.

**Following is a list of individuals and their home units involved in the actual shelter deployment:

- Umatilla Regulars, Crew Superintendent, Nancy Rancken-(20 individuals total)
 - Ken Swaringin, Line Scout, Mark Twain NF, Mo
 - Floyd De Witt, Division Supervisor, Shoshone District BLM, Id
 - Tom Weinman, Strike Team Leader, Colville NF, Wa
 - Gene Chouinard, Operations Dir., Eugene BLM, OR *****SPECIAL NOTE*****
Chouinard requests that only he notify his wife--he specifically requests that his home office NOT call his wife.
 - Rich Dahl, Strike Team Ldr., Mt. Baker Snoqualamie NF, Wa
 - Paul Stoudermire, Strike Team Ldr., Sumpter NF, Greenville SC
 - Ron Barrett, Division Supervisor, BLM, Carson City Nv
 - Gordon Brazzi, Crew Superintendent, Chico Max, Mendocino NF, Ca
- **Ron and I were in the area with Gene Chouinard, in fact at one point we were all in the jeep with Gene before our precautionary deployment.**

- Tony Casmaro, Division Supervisor, Los Padres NF, Ca
- Pepper Martin, Strike Team Ldr., Mark Twain NF, Mo

**Shelters were deployed in two different locations on the fire when it made it's run. Twenty one people, including the Umatilla Regulars and a Line Scout, Ken Swaringin, were in one location and nine others were in another location as I understand it at this time. (A total of 31 individuals actually deployed shelters and were in them slightly over an hour)

**I have the following recommendations:

- All home units should be notified immediately!!! Call me as soon as this has been done.
- I feel that the incident should be reviewed by an independent review team.
- A trauma expert needs to visit with those who were directly involved in the incident and the overhead team members. (Arrangements for this have already been made)
- The decision regarding the return to the fire assignment or release back to the home unit should be deffered until the crew and overhead involved have had time to visit with the trauma expert.
- No news media release until after the RO has notified each home unit for Employees involved.

IF ADDITIONAL INFORMATION BECOMES AVAILABLE I WILL FORWARD TO YOU ASAP.

GENE W. BENEDICT
BRANCH CHIEF, FIRE & RECREATION MANAGEMENT
PAYETTE NATIONAL FOREST

AUGUST 26, 1988
0958 HOURS

III. INVESTIGATIVE REPORT

FIRE: Eagle Bar Fire

DATE OF INCIDENT: August 25, 1988

TIME OF INCIDENT: Began the evening of August 25 at 2210 hours and extended to 0345 hours on August 26.

LOCATION: Hells Canyon Seven Devils Scenic Area, Council Ranger District, Payette National Forest; at the head of Sawpit Creek, just north of Kinney Point in Sec. 11, T21N, R3W, Boise Meridian, at about the 7,000 ft. elevation.

DATE FIRE STARTED: August 21, 1988

FIRE SIZE: Approximately 2,450 acres at the time of the incident.

CREW INVOLVED: Umatilla Regulars (20 persons), Division Supervisor, Corner Division, and Strike Team Leader, F Division.

TOPOGRAPHY: General - Salmon River breaks, steep, precipitous. Specific deployment area - 20 percent to 40 percent at the head of steep canyon.

WEATHER: Situation - The weather had been consistently dry. Daytime temperature highs were in the 80's, minimum relative humidities in the middle teens, and winds SW 5-10. Nighttime temperature lows were in the 50's, maximum relative humidities were in the mid 20's and winds less than 5 mph. The summer had been hot and dry with little precipitation in the last 60 days. Predicted - The forecast for the night shift was for "NW ridge winds 5-8 mph, down slope, down canyon wind 1-5 mph below inversion top. Minimum temperature 55 in drainages to 63 on ridges. Maximum RH 30-40% in drainages but only 22-24% on the ridge tops."

The night overhead and crews interpreted this to mean "more of the same" and "the fire will act as it has the last few nights."

A cold front had moved through the area about noon the day before but had little effect on the fire. Late in the day, the Fire Weather Forecaster recognized another cold front developing. He prepared a revised forecast, but did not distribute it because he again expected little effect on the weather. About 2200 Hours, cold, dry winds with the velocities over 20 mph and with rapidly changing direction swept over the fire area. The winds lasted for several hours.

Actual - Weather was about the same as actually predicted except for an unexplained "micro-burst" which resulted in a sudden increase of wind with a 360 degree shift in direction, and accompanying decrease in relative humidity. This caused immediate crowning and a shower of hot embers several hundred yards in front of the fire. These embers traveled further because of winds and quickly resulted in more crowning due to dry fuels and accumulations of fuel

under fir trees. There was a reported decrease in temperatures as the front passed through.

FUELS: Both dead and live fuel moistures very dry due to the extended drouth. The fire line had been constructed with a tractor downhill from the Sheep Rock Road toward Grassy Ridge. The first few hundred yards of the line were through heavy fir timber and then along the edge between small meadows and aspen patches against the fir edge. Ground fuels were moderately heavy with ladder fuels common under the fir trees, but the aspen and meadows had been grazed by sheep with much of the ground fuel removed. The meadows had been burning only where preheated by adjacent timber patches. The large grass meadow on Grassy Ridge was about one mile from the start of the fireline at the road. The fire was to the north with a continuous fir stand separating the fire line and the fire.

FIRE BEHAVIOR: Predicted - Divisions A-G: Active burning into the night with uphill runs from hot rolling material. Torching will loft hot embers and, if near ridgetop, carry embers to SE. Active burning will decrease around 0200 hours.

Special Concerns: Rapid runs upslope from slopovers, burnout of unburned islands will loft firebrands, slopovers into Deep Creek.

Divisions E-F: Moderate (lower slopes), High Fire Behavior (upper slopes) into evening. Upper slopes will have more activity into the evening becoming calmer around 0200 hours.

Actual - The fire behavior that was witnessed by the night shift before passage of the cold front was as expected by them. There would be torching of trees or groups of trees with short distance spotting and then an interval until the next torch. The fire would move slowly, and mostly on the ground.

As the cold front passed, the fire behavior changed dramatically. Witnesses reported high winds with erratic direction. Multiple trees would torch and showers of sparks would rain from the sky. The same clumps of trees would torch several times. The wind and direction the sparks drifted shifted from the north to the west to the south to the east; there was a 360 degree change. It was only a few minutes from the time the sparks landed until the ground fuels were burning under the trees and the trees would start to flame. The fire traveled rapidly in a south-easterly direction toward the fire line.

CONTROL STRATEGY: The crews were working the line to prepare for a burnout which would tie the front of the fire between the ridge on the east side of the fire (Haley Ridge-Kinney Point) with Grassy Ridge. The large meadows on Grassy Ridge were the anchor to the south side of the fire on the Snake River, with the anchor to the north side of the fire on the Snake being Haley Ridge. There were a couple of slopovers over Haley Ridge into Deep Creek, but they were not expected to affect this fireline and they did not. The line was well located and was on one of the flatter ridges to be found in the Hells Canyon area. It was the best place to front the fire for several miles and the weather forecast was favorable. The overhead team had assessed the risk, and realizing it was higher than they would have liked, still determine that it was less than a risk of any timely alternative.

SAFETY: The shift plan cautioned crews to post lookouts and be on guard for very active burning well into the evening. It also cautioned them to review the Fire Behavior Forecast. Additional safety concerns were driving, keeping up body fluids, and obtaining adequate rest. Firefighter safety is listed as the first Incident Objective.

IV. NARRATIVE

The Eagle Bar Fire started on August 21, 1988 in the bottom of Hells Canyon next to the Snake River. In typical river breaks fashion, it blew and snorted it's way up the east side to nearly the ridge top by the evening of August 25.

Russell's Class I team was assigned to the fire and most realized they had a tough fire on their hands with some serious safety concerns. The team is quite knowledgeable about this type of terrain and hoped to tie off the flanks and pinch off the head of the fire as it topped out, and before it slopped over into Deep Creek. "I had altered or changed assignments three night shifts in a row due to unsafe conditions and planning. Before changing assignments I had discussed it with Planning Section Chief, John Madden."

The Umatilla Regulars, led by crew superintendent, Nancy Rancken, had followed the fire up the north flank in Division A. On Wednesday night, the crew had been split by some erratic fire and were rather apprehensive about going into the head of the fire at Division F on the August 25, evening shift. The crew went on line about 2030 hours and were dropped off at Kinney Point, the corner of Division F. This was a part of the fire they had not been on previously.

After a good safety session, which included a check of the shelters,(This should send a message!), the crew started down the cat line west toward Grassy Ridge. Knowing they were at the head of the fire made them even more aware of the need for safety, so they were on the watch for escape routes and safe areas. They passed through some small openings along the uphill side of the line and felt the openings might be used for safe areas if shelters were used. The crew set to work in this area reinforcing the tractor line and awaiting further instructions from the overhead.

Gene Chouinard, The Night Operations Chief, was in charge of Floyd De Witt, Division Supervisor of Corner Division, Tony Casmero, the Division Supervisor of F Division, and Ron Barnett, Division Supervisor of G Division. Floyd was originally assigned to Division B, but after expressing some safety concerns to Gene, they created a new "Corner Division" below Kinney Point which was sandwiched between Divisions F and G. Gene had flown the fire with Floyd at 1700 hours but it didn't look the same once he got on the ground. I flew with Floyd and Gene and I said no to the night shift plan for Chico Max on Division B. I also had problems with the Corner Division idea but felt I could live with it. There was a new tractor line below Kinney Point which was above the road rather than below, as shown on the shift map. Floyd started walking out the line toward Division F to make certain of the situation so Gene drove north toward Rocky Point to a large bare ridge where where he could view the flare-ups which were occuring down the Sawpit Creek.

Floyd De Witt, Division Supervisor of the newly created Corner Division, was also concerned about the flare-ups down in Sawpit Creek. He had been in the same area the previous night and had to pull the crews out because of the flare-ups. On this night, he walked the line out to Division F to meet with

Tony Casmero and discuss the situation. Along the way, he met the Umatilla Crew and Tom Weiman, Strike Team Ldr. under Casmero. Floyd suggested that the crew could remove the slash from the inside of the dozer line to reinforce the line. He then Continued out toward Grassy Ridge. Floyd met with Tony at 2000 hours and discussed the tractor line and Division boundries. "I had spent 4+ shifts working with Floyd De Witt and he was very inexperienced, I'm not sure how he got Div. Qualified."

Radio chatter had picked up concerning the flare-ups below. Gordon Brazzi, Chico Max Superintendent, informed De Witt that they were moving the crews out of Corner Division so Floyd started back up the hill to see what was going on. About this time, Tony moved the Mark Twain Crew out to Grassy Ridge to avoid a possible blow up condition. He also called Tom Weiman and suggested that he make a decision about moving the Umatilla Crew out because the flare-ups were becoming active.

As De Witt moved up the trail back toward Corner Division, Tom Weiman and Nancy Rancken made the decision to move the Umatilla Crew off the line and west down the trail to Grassy Ridge. Just as they got the Umatilla Crew lined out and moving down the trail, they met De Witt coming back up the line. Floyd appeared to be in a state of anxiety and bent on getting back to the Corner Division to meet up with The Chico Max Crew. He told the Umatilla Crew that they couldn't get back to Grassy Ridge because the fire was getting too hot. He then moved passed them and started up the trail. Some of the Umatilla Crew wanted to go with him. However, Nancy and Tom had heard over the radio that the fire had already burned past the Corner Division. (I had notified them) They believed that Floyd WOULD not stand a chance of getting through to the Chico Max Crew.

As De Witt moved up the trail, someone in the crew (Nancy?) called out and said, "Mister, stay with us." Under the ensuing stress, several crew members felt that they should follow De Witt up the trail because of his fire experience; others wanted to continue down the trail to the safety of Grassy Ridge. Nancy and Tom were concerned that, if they allowed the crew to separate disaster would follow in the wake of a panic situation. They elected to stand firm and Nancy convinced De Witt to stay with them and deploy shelters in the small clearing. They had sufficient time to select the best spot and review the shelter deployment technique. "Nancy did an outstanding job during the entire incident."

Floyd remembers that they deployed the shelters at 2210 hours on August 25. Those in the shelters were: Umatilla Regular Crew (Type II), Crew Superintendent Nancy Rancken, Strike Team Ldr. Tom Weiman, and Division Supervisor Floyd De Witt.

There were four separate fire runs in the deployment area over the next 3 hours. At 1130 hours, De Witt's radio went dead, but he relayed through Nancy to Gene Chouinard that everything was going well. The crews seemed to maintain high morale throughout the ordeal although one person, Jimmy Turner, sustained minor burns on the calf of his leg. The violent wind accompanying the fire kept flapping the shelters up, and the shelters inched downhill each time a person moved. One person deployed his shelter within 20 feet of a large fir. The fir was surrounded by smaller ladder fuels and obviously burned quite hot. This may have been the location where the injury occurred. The Base Fire Camp

and Payette Dispatch were able to monitor radio messages from the entrapped crew. At 2400 hours, the crew was able to peer out from under the shelters but continued to have a lot of smoke and fire around so they remained in place.

In the meantime, another shelter deployment was unfolding over in Division G. Gene Chouinard drove his jeep north along the work road toward Sheep Rock trying to locate a vantage point to view the fire behavior. "Gene had picked me up earlier and tried to get to De Witt despite me telling him we could not get to him. That resulted in our deployment, along with three others." He stopped at several points and talked to Division Supervisor, Ron Barnett, a tractor boss, and some crew members. While he was talking to the tractor boss, they started getting a shower of sparks. He noted the Mendocino and Toiyabee Crews pulling back off the line to get back to safe areas. Gene called Ron Barnett on the radio and told him to get the crews out because of the increased winds and blowing sparks. "I contacted crews (Chico Max, Regulars, Etc.) and moved them out to a safer area. However, they got a ride with National Guard trucks or else they would have also had to deploy near Sheep Ridge. Sixty people plus three 4x4 National Guard trucks."

Once the crews and the tractor got lined out to the safe area, Gene proceeded north on the road to Sheep Rock. He did not perceive the situation as being threatening. He found a vantage point about 2200 hours and noted that the fire was not only spotting but starting to run. He then recognized that the situation was deteriorating in Division G. Division F still appeared safe but radio chatter indicated some people were popping shelters. Gene turned around to drive back south along the road to Division F to see what was happening in that division. Fire overran the road in front of him. He was forced to vacate the jeep and seek safety in a large opening along the ridge just to the east of the road. "Jim Barrett, myself, and two observers were also with Gene."

The whole Sawpit Creek basin seemed to him to come alive with fire. It was at this time he noted the fire making a run toward Division F. There was a tremendous shower of sparks falling on Gene who had by now met up with Ron Barrett, Gordon Brazzi, Paul Stoudermire, and Rich Dahl. They took out their shelters, deployed them as umbrellas to fend off the shower of sparks. Even though the jeep was in a precarious position, the men never considered themselves to be in a life threatening situation. The jeep was not harmed.

The situation at 2300 hours was as follows: 20 person Umatilla Crew, Nancy Rancken, Tom Weiman, and Floyd De Witt were holed up in shelters in a clearing in Division F. Gene Chouinard, and four others were using shelters to protect themselves from falling sparks in Division G. Tony Casmero and Mark Peppermark with the Mark Twain Crew were shivering in the cold wind on Grassy Ridge trying to figure out if all were safe in the shelters. All of the other crews were in safe areas. "Crews that I had evacuated met up by fluke with several National Guard trucks and were driven to safety areas."

Judging from radio traffic, it was assumed that morale was high and fear very low. The sheltered crews occasionally came out of the shelters when things cooled off following the run, only to be driven back inside by another rush of heat. Finally, at 0345 hours, August 26, the Umatilla Crew felt the situation was safe and moved down to Grassy Ridge to join Tony Casmero and the Mark Twain Crew. "The crews that deployed were very upset and felt their lives

were very much in danger. The radio traffic was very graphic and emotions were extreme. Nancy did an outstanding job durring the entire situation."

The Umatilla and Mark Twain Crews were evacuated at daylight and helicoptered back to the main camp. Both crews and the involved overhead were told that they would be sent to McCall immediately so that the investigation team could interview them away from "fire camp" conditins. They were also informed that there would be a trauma expert available to them if they wanted to take advantage of the service. All involved personnel were also told that they could return to fire duty if they wanted. They were informed that if they did not want to return they would be released and there would be no reflection on their ratings.

The Umatilla Crew decided, before they left the base camp on Auguet 26, that they would rather not return to the fire. Their release was porcessed effective on the completion of the McCall interviews. A trauma expert, Mr. Dennis Hall, counselled the crews in McCall and also talked briefly with the investigative team. After the counselling was completed, the trauma expert advised that it might be preferable to release the crews to return to their homes. The degree of trauma resulting from the incident seemed to exceed what the Incident Command Team and the investigators anticipated. "I agree with this, the folks were very upset and were not pleased with what had transpired and did not feel good about the investigation. Jim Baret and I stayed in a motel in town. We were never told when the investigation would take place, even though I left motel name and room # with Gene Chouinard and Floyd De Witt. I will respond more to this later in the report."

V. FINDINGS

A. (WEATHER) THE WEATHER WAS NOT AS PREDICTED.

There was apparently a "micro burst" of wind which created unusual burning activity. This extremely abrupt and unpredicted change of weather triggered the burning activity which brought about the shelter deployments. Whether the wind was caused by wind shear or just by the chimney effect of the increased burning in Sawpit Creek is unknown. However, Corner Division was located in the thermal belt where fire activity would seem to be greatest during the night so that increased fire activity might have been anticipated. Also, several persons (Tony Casmero, Gene Chouinard, Rich Dahl, and Pepper Martin) noted the changed condition of increased torching and small runs. These persons took action to get crews to safety, but the Umatilla Crew got mixed signals. Casmero felt the flare-ups were just normal fire activity given the fuels, topography, and the preheating effects. He subsequently became concerned over the reburn activity when he knew the Umatilla Crew was trapped.

B. (CONFUSION) THERE WAS AN UNUSUAL AMOUNT OF CONFUSION OVER SHIFT ASSIGNMENTS.

Shift assignments were changed just prior to the beginning work on the line. Crew work locations were changed after arriving on the line and crew bosses were unable to orient themselves properly because of a newly constructed tractor line.

1. The shift plan for Division B was changed just prior to the 1700 hour briefing. This has no bearing on the shelter deployment but does indicate that changes in planning may have been a normal method of operation. "Plans were changed a great deal due to poor planning and lack of good intelligence reporting. I turned in daily weather and report of conditions."

2. The shift map did not fit the tractor line on the ground. The map showed the tractor line below the road but in actuality, the line was constructed above the road and the slash side-cost into the fire rather than to the outside of the line. There was no tractor boss with the tractor and the operator.

3. Flag lines seemed to be all over the place.

4. The shift plan was changed again out on the line. The night Operations Section Chief and the Division Supervisors couldn't figure out the map on the ground so they created a new "Corner Division" to have a safer operation around the rocky Kinney Point section.

5. When the shift map seemed not to fit the condition on the ground, the Division Supervisor tried to salvage the work shift with hastily contrived plan which was not adequately communicated to all crew leaders.

"A real Breakdown created by the Corner Division. This was a poor plan from the start. I did not agree with it, but I tried to make it work. the

main problem was the lack of observers in places where they could see the main fire. However, it did not cause a problem which led to the deployment. De Witt and confusion with the Division Supervisor caused the breakdown in communication. Observers were not in position to see fire behavior. We should have been assigned to one of the current divisions and worked with in the framework of the existing plan."

C. (KNOWLEDGE OF THE AREA) THE NIGHT OPERATIONS CHIEF AND THE UMATILLA CREW SUPERINTENDENT WERE NOT KNOWLEDGEABLE ABOUT THE WORK AREA.

Neither Casmero nor Rancken had worked in the Corner Division before and were having a difficult time sizing up the situation because of the inaccurate map and lack of familiarity with terrain. "The Corner Division was a makeshift last minute plan. I said we should be either F or G -- Corner Division was Ridiculous."

The strike team leader and crew leader were not familiar with the terrain. The crew had not seen the the area in daylight conditions.

D. (INADQUATE SCOUTING) THERE WAS A LACK OF ADEQUATE COMMUNICATION BETWEEN RECONNAISSANCE AND CREWS.

Strike Team Leader Dahl noted the build-up in fire activity in Sawpit Creek from his vantage point in Division G but was unable to contact crews due to radio problems. The line scout for the Umatilla Crew noted that there was some unusual fire activity but was at a poor vantage point to determine just what was taking place, therefore he was reluctant to give an all out warning to vacate the line.

Line Scouts had not seen the area in daylight either and were unable to provide quality information to the work crews. "I gave the order to vacate the line when I could not contact Division De Witt. Sparks were blowing steadily over our line. I could feel the wind shift."

E. (INADEQUATE SAFE AREA) THE SAFETY AREA SELECTED BY THE STRIKE TEAM LEADER OR BY THE CREW SUPERINTENDANT WAS NOT ADEQUATE TO PROVIDE A SAFE ZONE UNLESS FIRE SHELTERS WERE DEPLOYED.

Either, because of the lack of familiarity with the terrain, or because of inexperience with possible fire behavior, the crew leader selected a marginal safe area which could have had catastrophic results. The crew noted the small meadow on the way down to the work area and seem to have agreed that the area would be an acceptable safe zone if the fire shelters were deployed. However, the slope gradient, adjacent large fuels, and accompanying winds combined to make the small meadow an "oven." Although the crew waited for nearly 45 minutes to deploy the shelters, excellent safe areas were available within several hundred yards in two separate areas which would have made shelter deployment unnecessary.

F. (INEXPERIENCE) INEXPERIENCE ON THE PART OF THE DIVISION SUPERVISOR DISRUPTED THE UMATILLA CREW TO THE POINT WHERE CONTINUED MOVEMENT TOWARD A PRIMARY SAFETY ZONE (GRASSY RIDGE) WAS NO LONGER POSSIBLE.

There are indications that the Division Supervisor, De Witt, may not have had adequate field experience in Salmon River breaks-type fires to have the comfort level for the assignment. Others viewing the same flare-up situation felt that it was normal fire activity and a reasonable assignment for that type of terrain. "De Witt was very inexperienced not trying to be too tough on him, he was way over his head. Also, that assignment (Corner Division) occurred because I was on the flight with Ops. Chief and Div. De Witt and turned down the assignment designated for us. I could tell you about a few others they had planned, but I don't want to scare you."

G. (CONTROL) EXCELLENT CREW CONTROL ON THE PART OF NANCY RANCKIN.

Human factors affected the crew and caused near panic. The Strike Team Leader and Crew Superintendent agreed to pull off the line because of the fire flare-up. They got the crew lined out and started toward Grassy Ridge but were stopped by the distraught Division Supervisor coming up the trail from Grassy Ridge. He told them they couldn't get out that way. The crew felt they couldn't go back the other way. The resulting panic nearly divided the crew, so the overhead felt that it would be safer to deploy shelters in the small meadow rather than to risk losing crew members who refused to continue to Grassy Ridge. Nancy was able to maintain control of the crew as well as other overhead and thereby avert disaster. "Nancy did an outstanding job! De Witt's batteries went dead so she maintained communication. Also, his batteries were on the way out earlier that's why I could not get him and removed the crews from the line myself."

H. (TACTICS) ORIGINAL SHIFT PLAN TACTICS WERE ACCEPTABLE.

The investigation team found no fault with the strategy of the original shift plan. Tactics outlined are normal for Salmon River breaks-type fires. A possible flaw might be the difficulty of pinching off the head of the fire in heavy timber in the middle of a thermal belt. "The potential for problems occurred when they created Corner Division with De Witt. We should have been assigned either to Division F or G. "Corner Division" is a red flag warning."

I. THE SECOND SHELTER DEPLOYMENT WHICH OCCURED DURING THIS INCIDENT WAS NOT LIFE THREATENING.

"No, but it never would have happened if Ops would have listened to me when I was evacuating crews. I told him we could not get to where he wanted to go."

J. TRAUMA EXPERIENCED BY THE ENTRAPPED CREWS FAR EXCEEDED THE LEVELS NORMALLY ANTICIPATED BY MANAGEMENT.

"Extreme fire behavior!! Crews for the most part were out matched for the type of fire. Only Chico Max and Prineville were experienced crews on assignment."

K. THE ORIGINAL PLANNED ESCAPE TO THE GRASSY RIDGE AREA WAS A GOOD DECISION HAD IT BEEN CARRIED THROUGH.

"Mr. De Witt confused the crews. He was not even in his division and giving directions."

L. THE CREWS WHO WERE IN THE SHELTER DEPLOYMENT WERE HIGHLY CRITICAL OF MANAGEMENT IN REGARD TO:

1. Judgement and experience of Operations Section on the August 25, night shift. "This was probably the 3rd or 4th shift where a series of major judgement errors were made. It had become a "watch out situation" and I was very aware of potential problems."

2. Handling of the crews after the evacuation to base camp. The crews felt they were abandoned and not transported to town in a timely manner. Some felt that the notification to home units following the entrapment was very poorly handled. "The overhead wanted crews out ASAP to McCall. De Witt and Chounard were visably shaken."

M. AT LEAST FIVE OF THE TEN STANDARD FIRE FIGHTING ORDERS, AND EIGHT OF THE EIGHTEEN "WATCH OUT SITUATIONS" WERE IGNORED BY OPERATIONS/CREWS IN THIS INCIDENT.

"I would say yes. However, crews were trying to do what leadership had asked of them. I was very concerned on what was going on and my guard was up thats why I had the crews leave the line as soon as I sensed problems. I had seen many problems on previous shifts and was ready to react as soon as I felt uncomfortable and my crew was aware of this."

N. SEVERAL SHELTERS WERE CRACKED OR WORN WITH OPENINGS IN THE FABRIC. ALL WERE EFFECTIVE IN PROTECTING OCCUPANTS.

VI. RECOMMENDATIONS

A. (WEATHER)

Establish a "Red Alert" system to be used by weather forecasters and fire behavior officers to contact personnel on the line to inform them of possible changes taking place in weather or fire behavior. Consider placing an experienced behavior officer on a vantage point during burnout or difficult conditions, rather than relying on scouts who may not have the background to assess the fire activity. "There were very poor vantage points for lookouts."

B. (CONFUSION)

1. Place additional emphasis to Overhead Teams on the need for quality shift plans which can be implemented on the ground. Timely feedback from the line minimizes change needed. "They got plenty of feedback from me including hourly weather from past shifts."

2. Emphasize the need for tractor bosses on the ground with the tractor and operator. Tractors are high cost items. If they are not doing the job where or as needed, ineffective fireline construction is the result. "Corner Division, F and G intersection was a huge dog leg. Poor line location."

3. Emphasize the importance of accurate reconnaissance and scouting on the ground. If flag lines are changed, than old ribbons must be pulled to avoid confusion. "They should not have created a Corner Division. That was the stupidist thing I've ever heard of."

4. See Recommendation A. We need to develop accurate viable shift plans which are understandable by everyone. Last minute or major adjustments to shift plans usually result in confusion and considerable wasted efforts on the part of the crews. The best shift changes still occur out on the line where supervisors can discuss problems on the ground and point out problem areas. There has been a continued drift away from this "passing the baton" on the fireline. "On the ground" hand off of Divisions is critical at night or if either party is unfamiliar with the area. Much of the confusion during this shift change would have been averted if Division Supervisors had the opportunity to meet out on the line and discuss the map, the boundries, the strategy, and the problems. As it was, they were "two ships passing in the night" who did not have a good flow of information. This is a common practice in our operations which needs to be changed.

5. There seems to have been a gap in information flow between Operations and Plans in fire camp. The crews and line overhead were not able to sort out this confusion without changing the shift plan. The Night Operations Chief had never seen the area on the ground but elected to change the shift plan without even seeing the line. Operations should be more closely tied in with Plans and have ownership in the shift plan. "Changing shift plans at the last minute was a common occurance on this incident. Poor reconissance. Plans of execution were unreasonable based on the terrain and fire behavior. This was a very

aggressive fire in tough terrain. Fire control lines were not far enough ahead of advancing fire. Impossible to go direct in many of the locations."

C. (KNOWLEDGE OF THE AREA)

Reaffirm the importance of having OPERATIONS personnel familiar with the area over which they are in charge.

D. (INADEQUATE SCOUTING)

Shift plans maps should ideally show "safe area" and recommended escape routes. "Escape Routes have to be established shift by shift because conditions and situations change constantly."

E. (INADEQUATE SAFE AREA)

Reaffirm to our crews that the only safety zones to be considered as "SAFE ZONES" are those which do not require the use of shelters for protection. "I agree with this statement 100%."

F. (INEXPERIENCE)

The ICS system is quite specific as to training requirements for qualification in assignments. It specifies that on ground experience is required to qualify for a position. A person can have considerable amount of fire experience in a single fuel model, and be well qualified to handle an assignment. We suggest that a person need experience in multiple fuel types (i.e., timber, sage, grass, chaparral, hardwoods, etc.) as well as in different topographic types before being approved for Type I team status.

Suggest to Overhead Team that the most experienced crews be placed in areas of greatest potential danger. Less experienced crews should not be placed at the head of a fire. Place additional emphasis on fire behavior training to include prescribed burns such as slash burning and broadcast burns. Many crews have limited hot line experience and are unable to accurately assess fire behavior. "Very good point. Overhead team was asking too much of what resources they had. However, there was a lot of other fire where resources were very limited and the team felt pressure to contain fire. This should send a warning to Overhead Team and others. I was a R-5 carded Division Supervisor at the time and was very open about how business was conducted. I think Floyd De Witt felt safe working with me. I was assigned to him on almost all of the shifts."

H. (SAFETY)

We need to impress to our overhead and crews the validity and importance of the "10 Standard Orders" and the "18 Watchout Situations". These need to be ingrained in all who work with fire line operations to the point where overhead and crews own the attitude of awareness to the problem. We need to continue to place emphasis on basics in firefighting. The problem continues to surface in the Strike Team Leader/Division Supervisor area. We need to have adequate on-the-ground experience as well as text book training. There seems to be no

good substitute for line experience as well as experience in sizing up fire behavior. "I agree with this completely. At the time of this incident I had 26 years of fire experience including 8 as a Smokejumper. I was very concerned about this assignment. Meaning the handling of the Eagle Bar Incident."

I. (MANAGEMENT)

Recognize that shelter deployment is critical and that, not only must we seek professional assistance for trauma counseling, but also be more attentive to the small things immediately following the incident.



LOOKING UPHILL



LOOKING WEST