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File Code: 6700/5100 Date: February 3, 1997
Route To:

Subject: Summit Incident Entrapment Board of Review

To: Forest Supervisors and Directors

Enclosed is the report issued as a result of the Summit Incident Entrapment Board of Review (BOR).

On August 26, 1996, 53 firefighters traveling in 5 vehicles became entrapped when their escape route was compromised. These personnel were performing firefighting duties on the Summit Incident but were under the control of the Malheur National Forest rather than the assigned Incident Management Team.

Following the entrapment, an Entrapment Investigative Team (EIT) was formed. The EIT investigated the entrapment and issued an investigative report. The report of the EIT is also enclosed.

The BOR was commissioned to review the report from the investigative team and recommend actions to the Regional Forester that would prevent a reoccurrence of such an incident. The BOR decided to issue the enclosed report in order to clarify the factors resulting in the entrapment and to document the BOR's additions/revisions to the investigative team's causal/contributing factors, conclusions, and recommendations. An action plan based on a combination of the work of the investigation team and the BOR is also part of the BOR report.

If you have any questions about the enclosed material, please contact Mike Spencer at S.SPENCER:R06C or (503) 326-6788, or Temple Tait-Ochs at T.TAITOCHS:R06A or (503) 326-3143.

/s/Robert W. Williams
ROBERT W. WILLIAMS
Regional Forester

Enclosure

SUMMIT INCIDENT ENTRAPMENT REVIEW

A. SUMMIT INCIDENT ENTRAPMENT EXECUTIVE SYNOPSIS

B. INVESTIGATION PROCESS

1. Investigation Team Establishment and Members
2. Timeline of Events Leading up to Entrapment
3. Individuals Interviewed
4. Issues Investigated

C. BOARD OF REVIEW REPORT

1. Board of Review Process
2. Board of Review Members
3. Causal/Contributing Factors
4. Conclusions
5. Recommendations/Action Plan

D. SUPPORTING DOCUMENTS

1. Entrapment Investigative Team Preliminary Report
2. Summit Fire Incident/Entrapment Element Matrix

A. SUMMIT INCIDENT ENTRAPMENT EXECUTIVE SYNOPSIS

On 8/13/96, lightning strikes resulted in numerous fires on the Umatilla National Forest (UMA) and the Malheur National Forest (MAL). By 8/19 an Incident Management Team (IMT) had assumed suppression responsibilities for four fires known as the Bull Complex, under the jurisdiction of the UMA. On 8/24 and 8/25 the Summit Fire, one of the four fires comprising the Bull Complex, made major runs on the southern flank and crossed over onto the MAL. With the acknowledgement of the IMT, fire staff personnel on the MAL organized and dispatched approximately 8 crews, 5 engines, and 9 miscellaneous overhead to take suppression action on the Summit Fire on 8/26.

At approximately 1800 hours on 8/26, 53 firefighters traveling in 5 vehicles, became entrapped when their escape route was compromised. After traveling approximately .75 miles down their access route from their drop point/work location the two crew buses, 1 engine, 1 pick-up, and 1 water tender encountered active fire adjacent to the road. Degrees of involvement varied from no burning activity to heat/smoke pulses crossing the road. At times, driver visibility was restricted to fine fuels burning along the road template. The engine paint was completely heat scorched. Some individuals deployed fire shelters and held them up against bus windows as a precautionary measure. The engine was the only vehicle to sustain damage. There were no physical injuries.

On 8/28/96; an Entrapment Investigative Team (EIT) arrived in John Day and began their investigation. On 8/31/96 the team presented their preliminary report to the PNW Regional Forester and the Forest Supervisors from the Malheur and Umatilla National Forests. In their report; the EIT had identified a significant scope and complexity of causal and contributing factors to the entrapment. The EIT focused their investigation the following three main issues:

1. The entrapment incident of the utilization of an escape route along Road 4550 for the following: 2 buses carrying crews NW-11 and San Carlos-115; a FS water tender; vehicles carrying Hefter +5; Engine 4203.

2. The Malheur National Forest (MAL) suppression action on a fire that already had an Incident Management Team (IMT) in place managing it.

3. Inadequate/inappropriate suppression actions taken on the Summit fire - south end on 8/25 - 8/26, 1996.

Following the completion of the investigation of the Summit Incident Entrapment, the decision was made to review the incident using a modified Board of Review process. Specifically, the Board of Review was commissioned to review the report from the investigation team and recommend actions to the Regional Forester that would prevent a reoccurrence of such an incident. Some departures from the traditional BOR format were incorporated, such as changing the Line Officer representation on the board. Rather than having the Forest Supervisors from the units involved in the incident act as board members, a Forest Supervisor from a unit with no involvement was selected.

Additionally, the decision was made to issue a separate Board of Review Report. The purpose of the BOR report is to clarify the factors resulting in the entrapment and to document the BOR's additions/revisions to the investigative team's causal/contributing factors, conclusions, and recommendations. An action plan based on a combination of the work of the investigation team and the BOR is also part of the BOR report.

B. INVESTIGATION PROCESS

1. Investigation Team Establishment and Members

On August 28, 1996, a Entrapment Investigative Team was commissioned to investigate and review the Malheur National Forest fire suppression operations conducted on August 26, 1996, on the Summit fire. Members included Wayne Eddy, Fire Staff, MTH (ICT1); Carol Carlock, DFMO, INF (ICT3 & DIVS); George Rummele, Chief Ranger, JDP (SOFR); and Karyn Wood, Deputy Forest Supervisor, SHF (PSC1), and Team Leader for the investigation. The team convened in John Day, Oregon, on August 29, 1996, to begin the investigation.

2. Timeline of Events Leading up to Entrapment

8/13 - Numerous lightning strikes that result in numerous fires on both UMF and MAF.

8/18 - Kearney's IMT assumed complex on the UMF called the Bull Complex - 4 fires: Rocky, #104, Summit, Bull. Bull Complex is in UMF jurisdiction with Acting Forest Supervisor Reilly line officer in charge.

8/19-8/23 - Fire activity on Rocky and Summit low to moderate; Rocky and Summit fires join.

8/24-8/25 - Fire activity increases on Summit.

8/25 - Major runs on Summit fire burns onto MAF. Multiple heads on south end of fire.

8/25 - Kearny IMT focuses on having to move Incident Base due to fire activity on the Tower (evening of 8/25).

8/25 - Evening phone conversation between Acting MAF Fire Staff Roddy Baumann and DPIC Ron Coates regarding MAF intentions and plans to take suppression action on south end of Summit. Ron Coates approves.

8/25 - Roddy Baumann negotiates use of some crews, engines, and miscellaneous overhead from Wildcat to use on Summit fire.

8/26, 0530-0600 - Baumann briefs Wildcat resources assigned to Summit that day. Hands out copies of an IAP for south end of Summit fire.

8/26 - MAF assigns crews/overhead to take suppression actions on south end of Summit fire.

8/26, 1736 - Dixie LO reports 60 mph east winds.

8/26, 1745-1750 - Wind strong on fire. Fire very active.

8/26, 1750-1815 - Larry Sohr instructs Chandler, Hagan, McCoy, Farnsworth (all division supervisors) to pull resources off the fire, either to Rd. 20 or into the black.

8/26, 1745-1815 - Most resources are pulling of line either into the black or south towards Rd. 20.

8/26, 1810 - Radio transmission heard by several people: "Coming down Big Boulder, fire on both sides of road." (sic)

8/26, 1820 - Forest Service WT, Hefter plus five, NW #11, San Carlos #115 in 2 buses, STCR Keithly, Forest Service Engine 4203 arrived at Sunshine Guard Station and relate experiences they had coming down Big Boulder Road with fire on both sides of road.

3. **Individuals Interviewed**

Carl Pence	FS, MAF
John Shoberg	DR, Long Creek
Doug Robin	DR, Bear Valley
Roddy Baumann	Acting Forest Staff Officer
Tom Reilly	Acting FS, UMF
Craig Smith-Dixon	DR, NFJD
Paul Solars	Fire, UMF
Louis Kearney	IC
Ron Coates	DIC
George Leech	DIVS
Larry Sohr	AFMO, BV
George Solverson	Safety Officer, MAF
Mike Spencer	R-6 AFM Safety and Training Officer
Mike Edrington	Area Commander
Brian Keithly	STCR
Glen Stein	DIVS
Greg Chandler	DIVS
Larry McCoy	DIVS
George Bukenhofer	STCR
Jonathon Victor	Crew Rep, San Carlos #115
Clifford Clark	Bus Driver, NW #11
Greg Gerke	Bus Driver, San Carlos #115
Gerri	Bus Driver
Terry Russell	SOF2
Denise	Bus Driver
Viralma Black	Bus Driver
Lance Weinrich	Mendocino Hot Shots, Acting Superintendent
Bob Heidson	FOBS
Janet Burgess	Burns Ranger District employee w/Hefter crew

Robert Irving	San Carlos #115 CRWB
Riley Steele	San Carlos #113 CRWB
Fred Strothers	Kiowa #35 CRWB
Tom Ferguson	Kiowa #34 CRWB
Tommy Savall	Kiowa #34 CRWB
Randy Miller	IARR

4. **Issues Investigated**

A. The entrapment incident of the utilization of an escape route along Road 4550 for the following: 2 buses carrying crews NW-11 and San Carlos-115; a FS water tender; vehicles carrying Hefter +5; Engine 4203.

B. The Malheur National Forest (MAL) suppression action on a fire that already had an Incident Management Team (IMT) in place managing it.

C. Inadequate/inappropriate suppression actions taken on the Summit fire - south end on 8/25 - 8/26, 1996.

C. BOARD OF REVIEW REPORT

1. Board of Review Process

Following the completion of the investigation of the Summit Incident Entrapment, the decision was made to review the incident using a modified Board of Review process. Specifically, the Board of Review was commissioned to review the report from the investigation team and recommend actions to the Regional Forester that would prevent a reoccurrence of such an incident. Some departures from the traditional BOR format were incorporated, such as changing the Line Officer representation on the board. Rather than having the Forest Supervisors from the units involved in the incident act as board members, a Forest Supervisor from a unit with no involvement was selected. Additionally, the decision was made to issue a separate Board of Review Report. The purpose of the BOR report is to clarify the factors resulting in the entrapment and to document the BOR's additions/revisions to the investigative team's causal/contributing factors, conclusions, and recommendations. An action plan based on a combination of the work of the investigation team and the BOR is also part of the BOR report.

2. Board of Review Members

Dick Ferraro, Chairperson, Deputy Regional Forester, R6
Ted Stubblefield, Forest Supervisor, Gifford Pinchot NF
George Rummele, Chief Ranger, John Day Fossil Beds, NPS
Wayne Eddy, Fire Staff Officer, Gifford Pinchot and Mt. Hood NF's
Roy Roosevelt, Director of Human Resources, R6/PNW
Mike Spencer, AFM Training and Safety Officer, R6
Temple Tait-Ochs, Safety and Health Manager, R6/PNW
Terry Johnson, Safety and Health Specialist, R6/PNW

3. Causal/Contributing Factors

FOR ISSUE #1 - The entrapment incident of the escape route along MAL road 4550 for the following resources: 2 buses carrying crews NW-11 and San Carlos-115; a Forest Service water tender; vehicles carrying Hefter+5; Engine 4203.

1. Inadequate planning - Lack of an Incident Action Plan (IAP) with required components to address a fire of this size (25,000+ acres).

2. Inadequate communication capability: no dedicated frequencies; heavy non-fire and fire radio traffic; lack of adequate air-to-ground link.

3. Inadequate lookouts posted - Personnel listed in above could not SEE main fire, and were not in contact with anyone that could; therefore, they were not aware of the change in fire behavior soon enough.

4. Extreme fire behavior - P.M. wind increase plus change in wind direction, spotting, increased fire activity. Becoming extreme. Visibility decreases, dry fuel conditions, low relative humidity.

5. Suppression actions by MAL resources on 8/26 lacked adequate planning, briefings, knowledge of fire location and behavior, proper organization, adequate and clear communications, adequate and clear direction, and adequate coordination among resources assigned.

6. Unclear instructions - Strike Team Leader and Division Supervisor had different understanding/memory of Division Supervisor's order for crews and buses to remain in black (safety zone) at the drop point if threatened.

7. Unaware that the fire was burning below the crews, the Strike Team Leader decided to evacuate via 4550 Road to the 20 Road. 4550 Road was compromised by fire, heavy smoke and zero visibility at times.

8. On 8/26/96, all 10 of the Standard Fire Orders were violated by one or more MAL directed persons or crews. Nine of the 18 Watch Out Situations were compromised to the point of contributing to an unsafety act or condition. (Watch Out Situation Numbers 1,3,4,5,6,7,12,15,16.)

FOR ISSUE #2 - Why the MAL took suppression action on the Summit fire, a fire that already had an Incident Management Team in place directing the suppression efforts.

1. IMT inappropriately relinquished control of the Summit Fire on 8/26; IMT did not issue an Incident Action Plan for 8/26; IMT improperly authorized use of initial attack strategy in lieu of incorporating MAL "extra forces" into those already assigned to the Summit Fire.

2. MAL Forest Supervisor did not believe the assigned IMT was meeting his expectations for management of the fire.

3. UMA Forest Supervisor, with input from Regional Office Aviation and Fire Management, was satisfied with the IMT's performance and qualifications and was unwilling to change the IMT.

4. Difference of opinion between Forest Supervisors regarding the adequacy of the IMT's performance may have increased the MAL desire to take independent action. (MAL perceived a lack of action by the IMT.)

5. MAL took independent action seven (7) days earlier to suppress a small segment of the Summit fire burning onto the Long Creek Ranger District.

6. Historical relationships between the MAL and UMA regarding fire suppression are territorial in nature and adversarial.

7. Acting Fire Staff Bauman felt pressured by Long Creek District Ranger Shoberg to take action on the fire upon its' encroachment onto the MAL.

8. Intense local pressure and bad press from an escaped Prescribed Natural Fire on the MAL could have contributed to MAL taking suppression action on Summit Fire on 8/26.

9. MAL Forest Supervisor failed to ensure appropriate forest level fire management staffing commensurate with or based on the volume and complexity of fire activity.

FOR ISSUE #3 - Inadequate/Inappropriate suppression actions taken on the Summit Fire-south end on 8/25-8/26/96.

1. IMT inappropriately relinquished control of the Summit Fire on 8/26; IMT did not issue an Incident Action Plan for 8/26; IMT improperly authorized use of initial attack strategy in lieu of incorporating MAL "extra forces" into those already assigned to the Summit Fire.

2. UMA Forest Supervisor was not involved with and did not explicitly approve of the action of 8/26.

3. Actions taken involved the poorly coordinated efforts of Kearney's IMT, MAL units, and the UMA.

4. Coordination and communications regarding suppression efforts on 8/26 between Kearney IMT and MAL were inadequate, incomplete, and confused.

5. Suppression actions by MAL resources on 8/26 lacked adequate planning, briefings, knowledge of fire location and behavior, proper organization, adequate and clear communications, adequate and clear direction, and adequate coordination among resources assigned.

6. On 8/26/96, as a result of major fire runs the previous day, the MAL utilized an inappropriate initial attack strategy involving 175+ resources to take suppression actions against a 10+ mile long active fire flank.

7. On 8/26/96, all 10 of the Standard Fire Orders were violated by one or more MAL directed persons or crews. Nine of the 18 Watch Out Situations were compromised to the point of contributing to an unsafe act or condition. (Watch Out Situation Numbers 1,3,4,5,6,7,12,15,16.)

8. MAL Forest Supervisor and UMA Acting Forest Supervisor did not get directly involved in decisions regarding organization, safety, and strategy for MAL suppression actions for 8/26/96. Escaped Fire Situation Analysis (EFSA) was neither updated or adjusted to meet the conditions of 8/26.

4) Conclusions

1. Fire under management of an IMT had actions independent in nature, implemented by a separate entity.

2. The initial attack strategy and tactics used on 8/26/96 by the MAL were improper and inappropriate.

3. Violations of the 10 Standard Fire Orders and compromise of a number of the 18 Watch Out Situations occurred.

4. The MAL Operations Chief Sohr and other overhead had incomplete knowledge of the fire to properly and safely assign, manage, and control resources.

5. Many employees and management officials of the MAL and UMA exhibit territorialism, mistrust, poor relationships, and inappropriate independence regarding joint fire suppression.

6. The Line Officers failed to redeem their responsibilities for management direction of the MAL suppression actions of 8/26. Line Officers were not appropriately involved with decisions, safety, strategy, or ensuring that clear direction was provided.

7. The Long Creek District Ranger inappropriately involved himself in directing tactical operations on the fireline. The District Ranger was not red card qualified.

8. The Long Creek District Ranger was largely responsible for projecting an inappropriate attitude of territorialism on the Long Creek District which fostered, in part, the negative "turf battle" between the MAL and UMA documented by the investigation team.

9. Inadequate planning and communication, inappropriate strategy and tactics, unclear direction and instructions, violations of 10 Fire Orders and compromise of many of the 18 Watch Out Situations created very unsafe actions and conditions on the afternoon of 8/26/96.

10. A water tender, Engine 4203, Hefter +5, NW11 crew, San Carlos 115 crew, Strike Team Leader Keithly, and two bus drivers experienced an entrapment situation when Road 4550 near Road 20 in Big Boulder Creek became compromised by heavy smoke, fire, and poor visibility in the late afternoon of 8/26 and did, in fact, experience an entrapment..

11. Many of the overhead assigned to the suppression actions on 8/26 exercised poor judgement, failed to take adequate action to ensure safety, failed to mitigate situations that shout watch out, and violated one or more of the Standard Fire Orders.

12. There was no immediate, on-the-spot, accountability for failing to meet established policies, procedures, and safety practices.

13. The decisions, following the 8/26 incident, to remove management of the Summit Incident from the Kearney IMT, to remove the MAL from directing suppression activities, and to assign management of Summit to a Type I IMT and Area Command were appropriate.

5) Recommendations/Action Plan

1. The Forest Supervisors on the MAL and UMA will report to the Regional Forester specific actions to be taken to ensure improvement of trust and cooperation for joint fire suppression activities. Documentation of accomplishment of the actions taken are to be a part of the report to the Regional Forester.

Responsibility: MAL & UMA Forest Supervisors

Due: 3/1/97

2. Reinforce adherence to established incident command and control procedures. All suppression actions are to be authorized, coordinated, and carried out by the assigned an delegated IMT. Stress this adherence to line and fire staff officers as well as to fire management officers.

Responsibility: Director of Fire and Aviation

Due: Immediately

3. Abandonment of responsibility for control of suppression activities by Kearney/Coates IMT on 8/25 and 8/26 should be reviewed by Region 6 and Region 8 Directors of Fire and Aviation and Southeastern Area Geographic Board.

Responsibility: Director of Fire and Aviation

Due: 3/1/97

4. Perform an evaluation of the need for disciplinary action for the individuals involved in the management, planning, and implementation of the MAL suppression activities of 8/25 and 8/26. Include a review of individual fire qualifications, training, and experience in the evaluation. If appropriate, recommendations should be made for additional training, different ICS qualification levels, and/or disciplinary action. Report results to the Regional Forester.

Responsibility: Directors of Human Resources and Fire and Aviation

Due: 3/1/97

5. Line Officers of UMA and MAL will be involved in the development of strategy and considerations by giving clear direction and sideboards to fire managers, followed by fully informed approval of resulting action. MAL and UMA Forest Supervisors will lead a discussion regarding this responsibility at the Fire Management for Local Agency Administrators (FMLAA) course.

Responsibility: UMA and MAL Forest Supervisors

Due: At next FMAA course

6. Develop a system of accountability/enforcement to ensure strict adherence to 10 Fire Orders and 18 Watch Out Situations prior to 1997 fire season.

Responsibility: UMA and MAL Forest Supervisors

Due: 5/1/97

7. The MAL Fire Staff Officer will present the Summit Incident Entrapment BOR Report and lead a discussion of "lessons learned" at the Spring 1997 Fire Staff Conference.

Responsibility: MAL Fire Staff Officer

Due: Spring 1997

8. The MAL Forest Supervisor, with assistance from the UMA Forest Supervisor, will review all aspects of the suppression actions of 8/26 for possible referral for disciplinary action. This is not intended to be a duplication of the review to be performed under #4 by the Directors of Human Resources and Fire and Aviation. The Forest Supervisors should review the actions of forest-level employees who contributed to the "turf battle" attitude and/or the failure to adequately provide for firefighter safety. Recommendations will be forwarded to the Regional Forester.

Responsibility: MAL and UMA Forest Supervisors

Due: 3/1/97

9. Incident Commanders will re-emphasize overhead responsibility to change decisions immediately when new information is available or conditions change and to coordinate changed decisions appropriately.

Responsibility: Director of Fire and Aviation/Incident Commanders

Due: Spring 1997 Incident Commander Meeting

10. Perform an evaluation of the fire training received by R6 Line Officers. Adequacy and currency of training will be reviewed to ensure that all Line Officers have the knowledge necessary to properly redeem their responsibilities as Agency Administrators in fire management situations.

Responsibility: Director of Fire and Aviation

Due: 3/15/97

D. SUPPORTING DOCUMENTS

1. EIT Preliminary Report

On August 28, 1996, a Fire Investigation Team was commissioned to investigate and review the Malheur National Forest fire suppression operations conducted on August 26, 1996, on the Summit fire. Members include Wayne Eddy, Fire Staff, MTH (ICT1); Carol Carlock, DFMO, INF (ICT3 & DIVS); George Rummele, Chief Ranger, JDP (SOFR); and Karyn Wood, Deputy Forest Supervisor, SHF (PSC1), and Team Leader for the investigation.

The team convened in John Day, Oregon, on August 29, 1996, to begin the investigation. The following events were reported to have occurred up to and including the incident on August 26. They are:

8/13 - Numerous lightning strikes that result in numerous fires on both UMF and MAF.

8/18 - Kearney's IMT assumed complex on the UMF called the Bull Complex - 4 fires: Rocky, #104, Summit, Bull. Bull Complex is in UMF jurisdiction with Acting Forest Supervisor Reilly line officer in charge.

8/19-8/23 - Fire activity on Rocky and Summit low to moderate; Rocky and Summit fires join.

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8/25 - Kearny IMT focuses on having to move Incident Base due to fire activity on the Tower (evening of 8/25).

8/25 - Evening phone conversation between Acting MAF Fire Staff Roddy Baumann and DPIC Ron Coates regarding MAF intentions and plans to take suppression action on south end of Summit. Ron Coates approves.

8/25 - Roddy Baumann negotiates use of some crews, engines, and miscellaneous overhead from Wildcat to use on Summit fire.

8/26, 0530-0600 - Baumann briefs Wildcat resources assigned to Summit that day. Hands out copies of an IAP for south end of Summit fire.

8/26 - MAF assigns crews/overhead to take suppression actions on south end of Summit fire.

8/26, 1736 - Dixie LO reports 60 mph east winds.

8/26, 1745-1750 - Wind strong on fire. Fire very active.

8/26, 1750-1815 - Larry Sohr instructs Chandler, Hagan, McCoy, Farnsworth (all division supervisors) to pull resources off the fire, either to Rd. 20 or into the black.

8/26, 1745-1815 - Most resources are pulling of line either into the black or south towards Rd. 20.

8/26, 1810 - Radio transmission heard by several people: "Coming down Big Boulder, fire on both sides of road." (sic)

8/26, 1820 - Forest Service WT, Hefter plus five, NW #11, San Carlos #115 in 2 buses, STCR Keithly, Forest Service Engine 4203 arrived at Sunshine Guard Station and relate experiences they had coming down Big Boulder Road with fire on both sides of road.

Enclosed is a detailed list of findings.

In addition, the following people were interviewed for the purpose of this investigation.

Carl Pence	FS, MAF
John Shoberg	DR, Long Creek
Doug Robin	DR, Bear Valley
Roddy Baumann	Acting Forest Staff Officer
Tom Reilly	Acting FS, UMF
Craig Smith-Dixon	DR, NFJD
Paul Solars	Fire, UMF
Louis Kearney	IC
Ron Coates	DIC
George Leech	DIVS
Larry Sohr	AFMO, BV
George Solverson	Safety Officer, MAF
Mike Spencer	R-6 AFM Safety and Training Officer
Mike Edrington	Area Commander
Brian Keithly	STCR
Glen Stein	DIVS
Greg Chandler	DIVS
Larry McCoy	DIVS
George Bukenhofer	STCR
Jonathon Victor	Crew Rep, San Carlos #115
Clifford Clark	Bus Driver, NW #11
Greg Gerke	Bus Driver, San Carlos #115
Gerri	Bus Driver
Terry Russell	SOF2
Denise	Bus Driver
Viralma Black	Bus Driver
Lance Weinrich	Mendocino Hot Shots, Acting Superintendent
Bob Heidson	FOBS
Janet Burgess	Burns Ranger District employee w/Hefter crew
Robert Irving	San Carlos #115 CRWB
Riley Steele	San Carlos #113 CRWB
Fred Strothers	Kiowa #35 CRWB
Tom Ferguson	Kiowa #34 CRWB
Tommy Savall	Kiowa #34 CRWB
Randy Miller	IARR

Additionally, there were violations of the 10 Standard Orders and compromises made in the 18 Situations That Shout Watch Out! A summary of this in included.

8/25
Events and Actions

Fire on both UMF and MAF.

Active fire behavior on the Summit Fire afternoon and evening.

ICP for Bull Complex evacuated - evening.

Coates/Leech meet with Klenski/Hagan morning of 8/25 at Indian Rock LO. Farnsworth joined them later. They discussed fire situation.

IMT taking action day/night of 8/25. IMT deploying night shift for first time. Farnsworth division supervisor; Leech OPBD - day; B. Walker OPBD night.

Evening - Lyle Klenski told John Shoberg, DR-LC, that MAF going to take action on south end of Summit fire. John approves.

MAF took action on fire evening of 8/25. Division supervisor Stein, OPS/IC Klenski assigned. No IAP.

Lyle Klenski in charge of MAF actions night of 8/25.

Roddy Baumann talks to Ron Coates via telephone in the evening. Roddy tells Ron that MAF taking action on south side of Summit. Ron approves.

2200 - Roddy calls Carl Pence to brief him on FBx and plan for MAF actions on the fire. Taking resources from Wildcat. Carl approves.

Roddy calls Paul Solars, UMF dispatch, 2230. Tells of plans to mobilize resources on south side of Summit fire morning of 8/26. Paul says, "This incident is under the control of an IC and independent actions are not allowed without prior approval from the IC."

Baumann places resource order to go to Summit 8/26 from Wildcat fire via a telephone call to Planning section.

Larry Sohr was ordered to report to direct fire activities at 0600.

Larry was not ordered by Kearney's IMT.

0530 - Baumann briefs 8 handcrews, ST-E, misc. OH, WT at Wildcat ICP. Larry Sohr not present. Other resources assigned were not at this briefing.

Elwood Stout developed an incomplete IAP for day shift for the MAF resources, and made copies and gave to Baumann for distribution.

Baumann and Pence travelled to Ukiah early morning for "Mini MAC" meeting.

Baumann gave Coates and Kearney incomplete IAP for day shift 8/26. Coates and Kearney told Baumann that IMT did not put any resources on Summit fire that day, due to evacuation of ICP evening before. IMT did not issue an IAP for 8/26.

0900 - Larry Sohr arrives on scene at Rd. 20, Sunshine GS area, and assumes position of OSC2. (Most interviewees unsure of Larry's exact position, confusion surrounding OPS v. IC. Larry red-carded as OSC2, IC type 3, OPBD.)

Resources from Wildcat arrive on scene 0845 to 1200.

Larry made some resource assignments in the morning.

Leech assumed OPBD duties morning of 8/26 and found engines, dozers, misc. on the fire.

Leech meets up with Larry Sohr on Rd. 20 in the afternoon.

Ranger Shoberg on the SE portion of the fire, helping direct resources to Farnsworth. Red card qualifications in SO do not include Shoberg.

Shoberg left fire at 1530 and went home.

1730 - Dixie LO reports 60 mph E. winds. Sohr contacts four division supervisors, asks if they copy Dixie. They respond affirmative and that all of their respective resources are safe.

1750 - Strong winds hit the Summit fire where MAF resources are. Larry in contact with all division supervisors. Most resources being pulled to road 20, McCoy-Chandler pulled resources into the black.

1800 - Radio transmit, heard by several: "Coming down Big Boulder with fire on both sides."

1810 - Larry hears transmission and asks for caller to identify.

Hefter + others, WT, 2 crews, 2 buses and an FS engine came down Big Boulder Creek Road 4550, with fire along road, to Rd. 20, then to Sunshine GS.

Solverson and Leech meet with crews. San Carlos #115 tells Leech of coming out of fire, Leech directs them to go back to whatever camp they came from.

Leech was not aware of all resources assigned by the MAF on the fire, nor was he aware of the strategy and tactics employed by MAF on the fire.

MAF resources using different radio frequencies than Kearney IMT operations.

Leech meets Sohr on Rd. 20, discussion ensued.

Statements made throughout our investigation indicated that MAF was taking IA action on this fire. The MAF did not have adequate intelligence on the south end of the Summit fire on 8/26/96.

Misc. Facts

EFSA for Bull Complex cosigned by AFS of UMF/FSMAF.

Regular meetings and conference calls involving UMF, MAF, ODF, ICs were held.

Pence made aware of 8/26 situation at 0430 8/27 via note Baumann left on his desk.

No clear direction, delegation of authority, safety considerations, or strategic input regarding MAF actions on 8/26 were given by the FS.

MAF strategy and tactics developed independently and without corroboration by Baumann, Klenski, and Sohr.

Forest to Forest (UMF-MAF) communications were unclear.

AFS Reilly, UMF, not aware of actions taken by MAF until morning of 8/26.

Shoberg not involved with EFSA or actions taken by Kearney's team until 8/26.

Shoberg not involved with MAF strategy and tactics of 8/25 or 8/26.

Two Buses and Crew Evacuation

August 26, 1996

0530- Briefing at Wildcat ICP. Roddy Bauman briefs personnel from Wildcat ICP that are going to the Summit fire. He discussed past fire activity, current progress and LCES. Baumann issued copies of incomplete IAP prepared by the MAF.

0845- Buses arrive at Sunshine Guard Station with crews.

1000-1830- Weather obs from FOBS (Hudson). See attachment

1100- Brian Keithly STCR and 3 other STL's meet buses and crews at Sunshine Guard Station.
Buses drive crews to work site-4550 and 577 rd. their DP. Also 1 FS watertender, 1 FS fire engine and Hefter + crew/
Stein gives briefing, work assignments and safety zone.
Keithly checks out safety zones that Stein talked about.
Keithly ties in with George Bukenhofer and crew that is above him.
Keithly asked Tommy Savall CRWB of Kiowa 34 to be lookout for his crew. Savall had a good view of his part of line. Savall kept in contact with Keithly via radio.

1215- Keithly briefs NW 11 crew at DP.
Chandler arrives and is unaware these crews were assigned to this area.
Chandler, Hefter and Keithly discuss their objectives.
Keithly briefs bus drivers about crew location, safety zones and PPE and showed them the USFS radios in nearby FS trucks and operations of those radios.
Keithly briefed San Carlos 115 crew of safety zone to their East and told them they would be working off of channel 6.

1242- Hudson FOBS relayed to Chandler/McCoy Div. Sups, torching on SW of Crockett Knob, near large grassy area. NE winds could have it running in the gras to river East of Horse Creek.

1300- Crews tie in with Mendicino HS to help support burnout. Mendicino crew tells them of good safety zone up the line in the black.

1430- Stronger winds, blowing ash. Keithly reevaluated the situation and ties in with Hefter. Both felt it was time to move the crews off line to buses, due to weather changes.

1500- Wind shift upslope and inversion sets up.

1530- Mendicino HS crew deports from line. Their shift is over. Chandler sent them back to camp.

1600- Weather stabilizes and Chandler (Div Sup) says to put crews back out on the line. Keithly goes West to act as lookout.

1700- Fire was moving down the ridge crest more swiftly then the ridge slope. Not running.

1740- Weather, winds increase, fire behavior intensifies.

1745- Fire starts spotting on upper slope of ridge about 100 feet from the fire edge. Chandler is notified by Keithly.

NW11 crew Squad Boss noticed a change. There was blue skies around a perimeter of smoke. Before it was smokey and hazy.

1750- NW 11 crew starts walking to their bus because of end of shift. Keithly STCR informs crew that there is spotting below and get to the buses quickly. Keithly radios Chandler of decision to pull off the line and about the spot fires and the fire behavior. Both crews in buses. Keithly sees clear air down below them on the road. Above them and upslope of them the air was black. Watertender departs for road 20.
Hudson FOBS told Sohr IC that there was fire on the eastside of ridge between Dry Creek and Beaver Creek.

1800- San Carlos 115 crew was the first bus out, then Keithly + NW11, followed by FS fire engine 4203, Hefter in one truck and rest of his crew in another truck.

1810- Keithly attempts to call George Bukenhofer to inform them of the situation and of their escape but no contact via radio was made.
Buses enter area of falling embers.
Fire on both sides of road- Keithly stated, we were committed and so we kept driving. Most of the way fire was on one side of the road or the other. Only a few locations was fire on both sides of road.
Keithly radios for assistance in clearing channel 3 to broadcast their situation and the fire burning uphill to warn others above.

1820- Buses arrive at Sunshine Guard Station.

4 Crews in the Black

0530- George Bukenhofer at briefing that Roddy Bauman gave at the Wildcat ICP. Kiowa Overhead were told of potential long range spotting. Tom Ferguson CREP, Tommy Savall CRWB, and Fred Strothers CRWB. Overhead for Kiowa.

0900- George Bukenhofer meets Boo Walker at Sunshine Guard Station. George is instructed to take Kiowa 34,35 crew and improve handline that the Mendicino H.S. crew had put in and plumb the line.
George Bukenhofer loads crews and follows the 2 division supervisors (Chandler and McCoy) to 4550 rd. Boo Walker is with them.

0910- Sohr orders SOFR's Russell and Burns to go to 4550 rd. and meet 2 crews - San Carlos 113 and San Carlos 114, 10 min. later Sohr adds Kiowa 34 and 35 crews.

0915- Russell and Burns check 4550 rd. above crews, road is blocked by snags and rocks.

1000- Bob Hudson located on Indian Rock, Bob is being used as a FOBS. He observes intense fire behavior. This fire behavior continues all day. Torching, crowning.
George Bukenhofer gives assignment to Kiowa crews.

1045- Russell moves buses from 577 rd. to 4550 rd because of potential spotting and to much unburned fuel at the location of the buses at the DP.

1200- Smoke gets heavy, Russell moves buses from 4550 rd. to Sunshine Guard Station. Radios Sohr of bus move and confirmed that Sohr had received this transmition.

1230- Kiowa Overhead observe wind speed increase, fire was still a backing fire. Heavier fuels were starting to burn.

1300- Russell tells STCR George Bukenhofer and CRWB Larry Samms of bus move. Sohr calls McCoy asks if they need San Carlos crews 113 and 114. McCoy said yes.

1400- Inversion sets up, spotting and winds increase, visibility decreases.
FOBS (Hudson) has to move lower due to the inversion dropping lower.
Russell tells crews to keep 1 foot in the black.

1500- Kiowa Overhead observe wind shift and learn that the buses have been moved to HWY 20.
McCoy ties in with San Carlos 113,114 crews to construct line.
McCoy assigns Murray to work with the San Carlos crews for communication. Since communications were bad.
Farnsworth turns division over to McCoy.

1530- Kiowa crews, overhead and Div. Chandler noticed an increase in the wind.

1600- Russell goes down ridge to 577 rd. notices conditions getting darker to the SW. No fire observed below his position.

1700- Div. Chandler observes a SW flow on the fire and the fire activity is low rates of spread, fire is still backing, and heavy smoke.
Dixie lookout reports 60 MPH winds and lightning.

1705- George Bukenhofer and Russell review safety zones for fire and lightning. Hear on radio that San Carlos crews 113,114 are coming back to 577 rd. due to spotting.

1725- Personnel hear "roar" (fire) below and behind their position.

1730- Buses held at rd. 20 due to fire severity by unknown person.
San Carlos crews 113,114 move into the black.

1745- Extreme Fire Behavior west of George Bukenhofer.
FOBS Hudson says he sees fire leaping at this time.
Hudson tell Sohr that the fire may have spotted East of Sunshine Guard Station below the road.

1750- STCR Bukenhofer and SOFR Russell decide to move their crews into the black.

1800- All four crews in the black. Kiowa 34-35, San Carlos 113,114, STCR Bukenhofer, SOFR Burns, SOFR Russell, Mills and Wenisk. Mills and Wenisk are a saw team from Hefters group.

1900- All in Black.

2400- Bukenhofer and Russell and both Div. Sups drive the 4550 rd to Sunshine Guard Station to get the buses.

2440- Buses loaded at DP and returning to ICP with all 4 crews.

August 27, 1996

0230- 2 buses take all 4 crews plus Russell Wildcat ICP.

Conflicts with 10 Standard Fire Orders

1. Fight fire aggressively but provide for safety first.

Personnel were sent to line for assignments without information or effective communications.

2. Initiate all action based on current and expected fire behavior.

Personnel were not informed about current or expected fire behavior.

3. Recognize current weather conditions and obtain forecasts.

Crews took their own weather, temps, and RHs on the line, but overhead did not obtain forecasts and forward them to necessary personnel.

4. Ensure instructions are given and understood.

No effective communications were established.

5. Obtain current information on fire status.

Inadequate lookouts. Very ineffective radio communications.

6. Remain in communication with crew members, your supervisor, and adjoining forces.

No plan was in place to identify resources and their locations. Radio communications were inadequate.

7. Determine safety zones and escape routes.

STCR was confused on safety zone and escape route.

8. Establish lookouts in potentially hazardous situations.

Lookouts were not posted in all potentially hazardous situations.

9. Retain control at all times.

Supervisors were unaware of crews' locations or of adjoining forces.

10. Stay alert, keep calm, think clearly, act decisively.

There was no cohesive plan from the outset of the shift.

Watch Out Situations

#4. Unfamiliar with weather and local factors influencing fire behavior.

Weather forecasts were unavailable to personnel on the line.

#5. Uninformed on strategy, tactics, and hazards.

Uninformed at all levels of the operation.

#6. Instructions and assignments not clear.

There was no plan, there was confusion as to who was in charge and what role personnel had on the fire.

#7. No communications link with crew members or supervisors.

Radio communications were inadequate.

#11. Unburned fuel between you and the fire.

There was unburned fuel between crews and escape routes and the fire.

#12. Cannot see main fire, not in contact with someone who can.

Lack of radio communication and need for lookouts caused lack of contact.

#15. Wind increases and/or changes direction.

Afternoon wind increases occurred and wind changed from westerly to east at 60 mph.

#16. Getting frequent spot fires across line.

Spotting was occurring across the line ahead of the fire in the afternoon.

2) Summit Fire Incident/Entrapment Element Matrix

Summit Fire Incident/Entrapment Element Matrix

	Did Not Contribute	Influenced	Significant
I. Fire Behavior			
Fuels	X		
Weather		X	
Topography	X		
Predicted vs Observed			X
II. Environmental Factors			
Smoke	X		
Temperature		X	
Visibility	X		
Slope	X		
Other	X		

III.	Incident Management		
Incident	Objectives	X	
	Strategy		X
	Tactics	X	
	Safety Briefing/Major Concerns Addressed	X	
	Instructions Given	X	
IV.	Control Mechanisms		
	Span of Control		X
	Communications		X
	Ongoing Evaluations		
	10 Standard Fire Orders/18		X
	Watch-Out Situations		X
V.	Involved Personnel Profiles		
	Training/Quals/Physical Fitness	X	
	Operational Period Length/Fatigue	X	
	Attitudes		X
	Leadership		X
	Experience Levels	X	
VI.	Equipment		
	Availability	X	
	Performance/ Non-Performance	X	
	Equipment Adequacy, Flexibility and Options	X	

Incident/Entrapment Matrix Narrative (Influenced or Significant Contribution)

Fire Behavior:

Predicted vs. Observed

* MHF forces had fire weather forecasts or but not predicted ire behavior other than recognition that Spotting is a major problem. Neither IMT nor MHF had a place systems/assignments to observe and communicate fire behavior in which to base all actions. On 9/25, the fire behavior was plum dominated with significant activity on the southern flank.

* Ridge top and surface wind driven spotting across the N. Fork of the John Day River and subsequent spotting back across Highway 20 into Big Boulder Creek was the source of the fire activity that the withdrawing buses/personnel encountered.

Incident Management:

Indecent Objectives

* The IMT did not produce an Incident Action Plan for 8/26 for the Summit Fire. The IAP prepared by the MHF for the 8/26 operations lacked specificity in organization, control operations, and assignments.

Strategy and Tactics

* The MHF employed an initial attack strategy on an approximately 12 mile southern active flank of large 20,000+ acre fire.

* The IMT did not develop any strategy and tactics for 8/26/96.

* The IMT failed to do contingency planning in case of fire camp jeopardy. Fire camp movement was a hasty, uncorrdinated evacuation with no contingency planning on the continuing responsibility to manage a large incident.

Safety Briefings/Major Concerns Addressed and Instructions Given

* It is impossible to provide adequate safety briefings, address major concerns, and give clear instructions if the location, size, scope, fire behavior, number of resources, location of resources and previous suppression actions are not known.

Control Mechanisms:

Span of Control

* The MHF fuels specialist was performing the duties of the Forest FMO, AFMO, and fuels specialist support.

Communications

* The UMF/IMT failed to provide the MHF with accurate, timely, and issue responsive Incident status information.

* Communications for the entire MHF operations were limited to the one Forest primary radio frequency.

Ongoing Evaluations

* None of the overhead personnel performed extensive evaluations of the situation and took corrective measures. Evidence indicates that the fire had spotted across the N. Fork of the John Day River and below the crews 2 to 2.5 hours prior to them starting the drive out. At least 7 Watch Out Situations were present early in the operational period and not addressed or fully mitigated.

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10 Standard Fire Orders/18 Watch Out Situations

Orders Violated

1. Flight fire aggressively, but provide for safety first. All 10 of the standard fire orders were violated at some time during the operational period at some level of the fire organization.

2. Initiate all action based on current and expected fire behavior. The resoures assigned did not have an interpretation of the active fire behavior on the previous day; and were not supplied with a fire behavior forecast. Spotting was recognized as a potiential in the MAF IAP; and indeed it did occur. Tactical operations were not adjusted to the active, spotting current fire behavior during 8/26.

3. Recognize current weather conditions and obtain forecasts. Overhead failed to obtain forecasts and failed to recognize/interpret/further investigate changing thermal, wind, and visibility conditions.

4. Ensure that instructions are given and understood. Some key instructions were confusing and sometimes conflicting. (Tactical assignments, Drop Point-Work Locations, Safety Zone utilization, and transportation staging locations).

5. Obtain current information on fire status. Overhead and crew personnel were unaware of the fire status. Overhead failed to do adequate size-up upon arrival and through-out operational period.

6. Remain in communication with crew members, your supervisor, and adjoining forces. Complete breakdown. Radio communication compromised. Personal initiative not taken to physically meet with supervisor/ subordinates. There were over 75-100 resources that were on line and not accounted for in any planning or suppression strategy. Attempts to communicate with aerial operations failed.

7. Determine safety zones and escape routes.

8. Establish lookouts in all potentially hazardous situations. Two main staffed observation points were compromised by smoke. This was not compensated for. Adequate lookouts were not posted to observe the divisional situation. Lookouts posted by STL/Crews were therefore too limited in focus.

9. Retain control at all times. The entire operation was not anchored with regards to fire status, fire behavior, types, location, and numbers of personnel assigned, and the actions and status of IMT forces. The IMT failed to organize and direct ongoing operations on an active fire. MHF management failed to plan, organize, and assign resources in a manner in which the command/control function was firmly and effectively in place. Overhead personnel; both from the IMT and the MHF, failed in the same manner.

10. Stay alert, keep calm, think clearly, act decisively. Overall situational awareness did not exist. Numerous miscellaneous overhead were either spread out and incommunicado, or centralized and focused on the immediate and confined situation directly in view.

SITUATIONS COMPROMISED THAT LEAD TO UNSAFE ACTS OR CONDITIONS

1. Fire not scouted and sized up. There were several levels of compromise. The MHF assigned and deployed resources without current status information. The overhead failed to adequately size up and communicate the fire status.

3. Safety zones and escape routes not identified. As stated; this situation was not compromised. What was compromised collectively was the monitoring, scouting, and evaluation of the viability of the Road 577 escape route.

4. Unfamiliar with weather and local factors influencing fire behavior. Local forces were familiar with weather and local factors however the majority of personnel were not. Combined with absence of predicted fire behavior and actual fire status, the indicators of changing conditions were either not recognized, interpreted correctly, or appropriately acted upon.

5. Uninformed on strategy, tactics, and hazards. The entire operation was based on an faulty initial attack strategy which was compounded by systemic breakdown of situational awareness.

6. Instructions and assignments not clear. More than clarity; instructions and assignments where not coordinated, collectively known, and sometimes conflicting.

7. No communication link with crew members/supervisors. The systemic breakdown of communications at all levels before and during these operations is perhaps the main contributing factor to this incident.

12. Cannot see main fire, not in contact with anyone who can. The personnel; including overhead, were not aware of a 1.5 mile southern spread; nor the spotting back over Highway 20 below the crews of the fire.

15. Wind increases and or changes direction. While some personnel were monitoring site specific weather; ridge top winds and major topographic wind patterns and speeds were not. It appears that it was not until XXXX hrs;when the Dixie Lookout which is xx miles away from the fire; reported 60 mph winds out of the XX, that increasing winds became an operations issue.

16. Getting frequent spot fires across line. As early as XXXX hrs.; crews were suspending operations due to spotting activity in their immediate location.