

Fire and Aviation Safety Team (FAST) Visit

Fire: Sequoia Fire

Incident Commander: Tom Suwyn (Great Basin Type II team)

Location: Pine Valley Ranger District, Dixie National Forest

Date July 21-23, 2002

Situation:

The Sequoia Fire was burning on steep slopes south of New Harmony, Utah in mixed mountain shrub, mixed conifer and pinyon/juniper. The fire was approximately 8,000 acres. There were 3 Type I and 8 Type II crews. Helicopters on site included 1 Type 1, 2 Type 2's, 2 Type 3's along with a portable retardant plant. Three engines were also assigned.

FAST Members: John Shive (BLM-USO) Team Leader
Jan Peterson (BLM-IDSO) Health and Safety
Greg Vergari (R4) Fire Operations
Jill McCurdy (R4) Aviation Safety
Rachel Carver (BLM-PRD) Incident Business Management

Purpose:

Fire and Aviation Safety Teams (FAST) are activated during periods of high wildland fire activity or threat and are dispatched to provide assistance and conduct evaluations to promote safe operations. Team composition depends on the complexity of the incident(s). This FAST was activated by the Great Basin Coordinating Group (GBCG) on July 14, 2002. The team leader was given a delegation of authority signed by the Chairman of the GBCG at an entry briefing by Mike Dudley (R4 Director of Fire and Aviation) and Sheldon Wimmer (BLM Utah State Fire Management Officer) on July 15, 2002.

Introduction:

The FAST received an entry briefing on July 21, 2002 by Brett Fay Forest Fire Staff, Dixie National Forest. Brett requested that the FAST assess a sample of the Forest time and attendance records to determine if work rest guidelines are being followed correctly. In addition, he requested that the FAST assess the operational safety of Suwyn's Type II team in the management of the Sequoia Incident. The FAST did an entry briefing with Suwyn's Type II team at the ICP near New Harmony, Utah at approximately 1630 on July 21. The FAST leader emphasized the importance of "Safety" during our visit with focus on assistance and adherence to policy and that the FAST was there to assist both the Forest and the IMT in identifying and mitigating possible safety issues/concerns. The FAST attended the IMT preplanning and planning meeting the evening of the 21st for the following day shift and met with Acting Forest Supervisor, Randy Swick and briefed him on the purpose of the FAST visit. John Shive and Jill McCurdy spent the afternoon of July 22 at the helibase working with the management and assisting the Helibase staff in mitigating safety and staffing concerns. Greg Vergari interviewed crews on the line and at ICP and worked with the Forest Fire Staff to answer and address issues

on the forest level. On July 23 John Shive, Jill McCurdy, and Greg Vergari attended the morning shift briefing at ICP and at the Helibase. The FAST utilized the sample questions (from the Interagency Standards for Fire Operations) attached to this report in conducting interviews during the visit. An exit briefing covering findings and recommendations was conducted between the FAST, Acting Forest Supervisor, Forest Fire Staff and the IC at 0800 on July 24, 2002 in the Supervisors Office in Cedar City.

Observations:

Management

Suwyn's Great Basin Type II team (IMT) was following standard ICS procedures and was fully staffed to manage the incident assigned except for the Air Operations Branch (see aviation summary). There was one spike camp established and the ICP and Incident Base had been established near New Harmony, Utah. The IMT felt that they were receiving adequate direction and guidance from the Line Officer and staff. The delegation of authority included signatures from all participating agencies. A structure protection plan had been developed by the IMT and discussed and coordinated with local residents and the Division of State Lands Fire and Forestry. A WFSA was in place, was being signed off daily by the appropriate line officer and revised as necessary. The transition with the type III organization was smooth and well executed.

Aviation

Upon the arrival at the incident McCurdy met with AOBD, Blake Ford. The retardant contractors had arrived to set up, so we went to the retardant base to check on it. The site had previously been a small trail head. The team had worked with the local unit to enlarge and surface the site so that it adequately met the specifications for a Type 1 helicopter/retardant dip site. This included blading off vegetation and hauling/compacting gravel. Signage and appropriate flagging were placed at the site. Law enforcement personnel were stationed at the road to provide security for the site. Dave Ricks (LEO/ASGS) provided oversight for the retardant site.

We proceeded on to the helibase. The spacing and general layout of the helibase was adequate for the helicopters and operations currently going on. Helicopters on site included 1 Type 1, 2 Type 2's, 2 Type 3's. The touchdown pads and roads leading to them had been graveled in an effort to alleviate the dust. Water tenders were on site and being utilized. A government owned helibase operations trailer was in place. It was effective as a radio operations base. A crash rescue engine was stationed at the helibase. All required IHOG paperwork was complete and filed in an organized fashion. A flight hazard map was not posted. The flight hazard map book was utilized in pilot briefings. A flight hazard map of the fire area was on order from the local GIS organization. It arrived at the helibase July 23, 2002. Shaded rest areas were provided for pilots and crews.

Qualified helibase management personnel were not in place. A HEB1 had been ordered at the start of the incident-4 days previous and continually since. Kevin Greenhalgh (HEB2) was filling this position. Kevin had assistance from Cyndi Sidles (HEB2(T)), and oversight by Blake Ford. Orders had been placed for other helibase personnel as well and had not yet been filled. The helibase was functioning properly with this management structure, although personnel were

stretched thin at times of high activity. The incident was making good use of many local trainee helitack personnel.

After identifying the critical management need for a HEB1, and other helibase personnel, McCurdy & Shive checked with EGBCC to confirm the orders. The importance of filling these orders was stressed. The issue was discussed with the IC and the Forest Fire Staff. The possibility of downscaling the operation to a Type 2 helibase organization was considered. If this option was utilized it would have a detrimental impact on the fire suppression effort and possibly to the safety of the fire fighting operation in general.

A call was placed to R-4 Helicopter Operations Specialist, Glenn Johnston on the morning of July 22, 2002. The current situation was explained to him. He stated that if the operation was indeed a satisfactory operation and downsizing of the air operation would be a large impact to the fire suppression/safety operations the helibase could operate in the current fashion as long as the orders were still standing and everything was being done to fill the order. He would also canvass the HEB1's in the region as to their availability. Within a half hour Glenn had gotten a commitment to the assignment from Kirby Cook, HEB1, Uinta National Forest. A name request order was placed through EGBCC and Kirby was on site by the evening of July 22.

McCurdy, Shive & Vergari attended the Helibase briefing the morning of July 23, 2002. The briefing, given by Kevin Greenhalgh was thorough. The IAP and the Appendix F Daily Helicopter Operations Briefing/Debriefing Checklist were utilized. The helibase appeared to be in good running order.

Line Fire Safety

Fatigue Management - Crews interviewed were well within the work/rest guidelines on July 22, 2002. The crews interviewed were working 13 hour shifts and had been on assignment for 8 days and were well aware of the rules.

IMT staffing related to safety impacts - The IMT was staffed sufficiently with a SOF2 from the team and two assistants on line. The IAP was well formatted and complete. I discussed improvements to the 215a such as identifying the "Downhill Checklist" (page 8 IRPG) as mitigation for Downhill Line Construction. The IRPG was referenced a great deal in the 215a, which is a good idea. I also emphasized the importance of establishing known lookouts wherever possible and identify the lookout in the IAP when this is possible.

Change of Command - From the Type II teams point of view the change of command was smooth. Safety was not compromised.

Contract/Cooperator Safety Issues- The only contract resources were water tenders and a few engines. The Type II Team inspected equipment and Red Cards.

Recognition of Fire Danger and Great Basin severity - Fire behavior predictions were well done, informative and timely. IAP's were flown up to spike camp and a morning radio briefing was given to the camps on the hill.

Ground Fire Safety - Unit Operations

The Forest has given the required Line Officer briefing to Type 3, 4, 5 IC, s. They have also completed the required entrapment training according to the Fire Staff. I did not personally review the documentation.

Daily indices are given during the afternoon weather briefing.

Most supervisors have the IRPG and all have pocket cards.

The Forest has designated Duty Officers for Zones, Forest and some Districts also have Duty Officers. Not all Duty Officers are qualified on the Forest as DIVS or ICT3 as was determined in the 30 Mile Action Plan developed for Region 4. They do however have a qualified Duty Officers at the Forest level that oversees the Duty Officer (T) that are on the Zones and Districts. This type of mitigation is acceptable.

Complexity analysis was done by the Duty Officer according to R4 30 Mile Action Plan.

IA Crews for the most part are doing 214's. The Forest has not yet implemented the 201/214 for every incident as outlined in the 30 Mile Action Plan for R4.

The Forest did not receive any IAP's from the type III organization. I talked to the Type III IC and determined that he had no collateral duties. He had a SOF and OSC. No IAP's were produced and the planning section was not utilized.

Local suppression crews are doing After Action Reviews (AAR's). They said they sometimes use the IRPG. I stressed using pg-8 of the IRPG to facilitate their AAR's and to do so often.

Brett indicated that he thought the Forest was behind on the required 10% management AAR's by Line Officers and Fire Program Managers.

Thirty-Mile Compliance - The SOF was given a copy of the 30 Mile Incident Checklist. The assistant SOF downloaded the information on the morning of July 22, 2002.

Red cards were checked at check-in and recorded for the ones actually seen. Resource Unit leader said that all Red Cards were being checked including overhead positions.

Overall, 30 Mile Action Items are being implemented, addressed or followed. IRPG's are still not available. In the interim, I have notified teams to print the Risk Management Process on the IAP's.

Work/Rest Compliance

Work/rest standards are being managed according to current policy and guidance. The IMT is using ITS to track excessive hours. Some work shifts exceeded 16 hours. Documentation was on file to support the excessive hours. Extended shift work (e.g. 0500 – 2330) is being mitigated by 2-3 hour breaks during mid-day. In these situations, actual hours of work is not exceeding 16

hours, however, there is no documentation to indicate that this is being done as part of fatigue management. It is our recommendation that the IMT document this mitigation. Random spot check of hours worked by all resources assigned to the incident reflected that the IMT is paying close attention to work/rest compliance and is doing an excellent job.

Occupational Health and Safety

Safety was emphasized during the briefings and evident in the ICP layout and daily operations. An ICP safety inspection was conducted and the findings are as follows:

- **Housekeeping:** The ICP was clean, free of hazards, and the equipment/materials storage met OSHA regulations. Personal hygiene was promoted with hand washing stations and access to non-water microbial soap.
- **Walking and working surfaces:** Stairs to trailers had adequate railings and areas of traffic were free of tripping hazards.
- **Electrical:** All live parts were guarded, systems were grounded and all cords, cord connectors, lamps were adequate.
- **Flammable and Combustibles:** Flammable and combustible products were stored correctly with proper labeling.
- **Exits and Related Features:** Emergency egress regulations were met and appropriate flagging/alert signs were posted for hazards.

Overall the ICP was well planned and met safety/health regulations.

The ICP medical unit reported to Logistics. Accidents/injuries were low and the treatments were primarily maintenance/prevention. Fire line qualified paramedics were established on the line and available to give fire fighters emergency/medical treatments, which minimized the need for transportation to the ICP Medical Unit. This strategy provided a strong Occupational Health Program for line personnel.

Overall the Sequoia Fire had an excellent Occupational Health and Safety Program.

Suppression Operations

Strategy was sound under the current fire conditions and appeared to be meeting the WFSAs objectives.

/s/ John C. Shive
John C. Shive, Team Leader

July 23, 2002
Date

Sample Questions For Fire Site Visits Standards For Fire and Aviation Operations

Management Direction

- [] Who is the incident commander? If the fire is being managed under Unified Command, are all commanders present? Is the incident operating smoothly?
- [] What is the incident organization?
- [] What is the current situation? What has been damaged or is at risk?
- [] Have you received adequate direction for the management of the incident? Is a Wildland Fire Situation Analysis required/still valid?
- [] What are the incident management objectives? Constraints? Probability of success?
- [] Are the Incident Action Plan tactics realistic and achievable with current resources?
- [] Is a resource advisor needed?
- [] What are you estimated of suppression costs?
- [] What are the incident commander's concerns?
- [] What are the local social, economic, and political issues?
- [] Are there rehabilitation needs?
- [] What can I, as the agency administrator, do to help?

Safety

- [] What are your safety concerns?
- [] Are these concerns resolved? If not, what needs to be done?
- [] What is the general safety attitude and emphasis?
- [] Have you assessed the potential hazardous situations and determined if the fire can be fought safely?
- [] Have you applied the Fire Orders, Watchout Situations, and Lookout, Communication, Escape routes, Safety zones (LCES) process in selecting safe and effective strategies and tactics?
- [] Have you effectively briefed fire fighters of hazards, safety zones, escape routes, and current and expected weather and fire behavior?

- [] Is the safety officer position filled? If not, how is this function being addressed?
- [] Are you monitoring work schedules to ensure adequate rest? Are you meeting the standard work/rest guidelines?
- [] Have you provided for adequate rest, food, water, and health services for all personnel?
- [] Are all the fire personnel qualified for the positions they hold, and are they physically able to perform?
- [] Have you had any injuries or accidents?

Fire Suppression Operations

- [] What is the fire weather forecast (present and extended)?
- [] What is the fire behavior potential?
- [] Are fire personnel briefed on incident objectives, strategies, tactics, organization, communications, hazards, and safety principles?
- [] Are the strategy and tactics safe, effective, and consistent with management's objectives and accepted fire policies and procedures?
- [] Do you have effective communication on incident and with dispatch?
- [] Are you monitoring weather and fire behavior to make needed adjustments to strategy and tactics?
- [] Are you using tactical aircraft? Do you have an assigned air tactical group supervisor?
- [] Is aircraft use safe, effective and efficient?
- [] If the fire escapes initial attack, what will your role be in developing the Wildland Fire Situation Analysis?

Administration

- [] Do you have any administrative concerns?
- [] What arrangements have you made to complete time reports, accident forms, fire report, etc.?
- [] Did all orders and procurement go through dispatch?
- [] Do you have any outstanding obligations?

- [] Are all rental agreements and use records properly completed?
- [] How did the fire start? If human-caused, has an investigation been initiated to determine the cause and develop a trespass case?
- [] Do you know of any current or potential claims?

Dispatch Office

- [] Is the incident receiving fire weather and fire behavior information?
- [] Is the incident getting the resources ordered in a timely manner?
- [] Is dispatch adequately staffed?
- [] What are the local area and national Preparedness Levels? How do they affect this fire?
- [] Are the elements identified at the various Preparedness Levels being considered?
- [] What are the current local, area and national fire situations?
- [] What is the priority of existing fires and how are the priorities being determined?