AFTER ACTION REVIEW
NOON FIRE
CORONADO NATIONAL FOREST
Safford Ranger District
June 25, 2004

PREFACE

The Noon fire was started by lightning in the afternoon of June 22, 2004. Safford Ranger District firefighters and the Dalton IHC were the initial crews on scene. Due to steep and rugged terrain and the serious threat of roll-out, all personnel left the scene at dark except for three personnel left at the top of the fire (in the black) to monitor its progress. Other crews starting arriving that evening and were bedded down in order to rest for an early start the following day. In the afternoon of June 24, 2004 four firefighters from the Dalton Hotshot Crew were working the Noon Fire and were injured from a lightning strike. It was evident through this After Action Review (AAR), although not intended as an investigation tool, that all the crews on the Noon fire were aware of the thunderstorm and lightning activity, had reviewed the thunderstorm protocol in the Incident Pocket Response Guide (IRPG), and had moved down slope from the ridgeline prior to this incident. The intent of this AAR was to focus on this "incident within an incident" and not attempt to review the entire Noon fire. The following are the notes from this AAR as it explored the four basic questions of the standard AAR format.

WHAT WAS PLANNED?

The assignment was similar to the day before; finish or improve line construction, mop-up burning material, and patrol the area looking for roll-outs. The weather would also be similar and lightning was expected in the afternoon.

Local fire personnel (overhead assigned to the Noon fire) had set in motion and confirmed the availability of a rescue helicopter from a nearby Air Force base. This rescue squadron was known to specialize in winch/hoist extraction and night-vision rescue. This need was identified the evening of the 22nd of June as a mitigation measure to the difficult terrain and the lack of available helispot locations.

On Wednesday, June 23rd, this evacuation plan (above) was in place but not relayed to the crews or the Division Supervisors. Overhead on the fire examined (by aerial recon) the area for a possible helispot but the only area that was available was up hill from the fire and through some very steep and rough country. This information was passed on to the Division Supervisors, but no follow up was relayed regarding the evacuation plan utilizing the Air Force rescue helicopter.

The crews were briefed about the safety concern of lightning during thunderstorms. Crews had talked about the weather conditions being more than the day before.

The District had a lookout in Heliograph directly above the fire but the main storm was over it.

WHAT ACTUALLY HAPPENED?

The crews on the fire were monitoring the thunderstorm activity and had moved off the high ridge at the top of the fire prior to this incident.

The main lightning storm was off to the west. About 5 minutes before the injuries, the helicopter was ordered off the fire due to the amount of lightning in the area. The lightning strike that caused the injuries appears to be the first or second strike of lightning on the ridge where the fire was located and away from the main strikes to the west. The lightning hit very close to where the four firefighters were sitting. It is estimated that the bolt hit the ground or in the rocks, then traveled to the firefighters. The person injured the most was sitting on a rock.

The lightning strike that caused the injuries appeared to have struck mid-slope on the fire and not the ridge top.

Air attack and the lookout said the main storm was moving away from the fire.

People on the north side of the ridge couldn't see the storm.

WHY DID IT HAPPEN?

Lightning is a common occurrence in the desert southwest. The monsoon season usually starts the first or second week in July, as moisture moves up from Mexico and is heated during the day causing severe thunderstorms in the afternoon and evenings. Lightning is the main cause of wild fires during this period, usually striking the ridge tops.

The usual mindset is for crews to stay on the fire, find a safe area away from the usual lightning prone areas and wait for the storm to pass.

It was recognized that the Dalton Hotshots and other crews were seeking or already at lower ground and dispersed in small groups as opposed to fully dispersing to the individual level. This was discussed when addressing the "why" of four instead of one individual being injured.

The fire fighters were exposed to the remote ("one in a million") chance of being struck by lightning in the woods. This exposure is nothing new…it's something we often get stuck with as we fight fires this time of year in areas prone to thunderstorm buildup. This is why we have things like the IRPG and it's lightning information.

WHAT CAN WE DO NEXT TIME?

Incident Response Pocket Guide (IRPG)

- A recommendation was made to include a "Critical Scene Management" page or two in the next version of the IRPG; how to manage an incident within an incident. It was suggested that some guidance or hints be added to the IRPG on how to analyze and secure a critical scene and ensure for everyone's safety at the scene. Guidance for analysis through the next level and how to anticipate future actions would be helpful.

- Use the Incident Response Pocket Guide, "put it in your face". It was suggested to share the philosophy of utilizing the IRPG. It needs to be opened and utilized more than it appears to be. (This was a suggestion beyond this incident…a national emphasis. The IRPG was utilized by the crews for lightning awareness and other items on this fire.)

- Look at the lightning SOP in the IRPG and share with others in the wildfire business. The question was asked if everyone knows the right things to do during a lightning storm; i.e. turn off radios (who and when turns them back on), sitting on packs, space blankets, separate the people (multiple injuries are more difficult to handle) etc. (It was suggested that there may be some unanswered questions in the current IRPG lightning protocol…this information should be forwarded to NWCG.)

Standard Operating Procedures (SOP) for Thunderstorms

- We should develop SOPs to leave the fire when lightning starts. This SOP is meant to have shorter shifts and have crews leave the lightning prone area by afternoon. It was not suggested that crews travel back and forth to a fire before and after thunderstorms occur. This would be unnecessary exposure to terrain. Rather, this intent is to plan on bringing crews off the line when thunderstorms are likely to, forecasted to, or do develop.

- Could this storm have been tracked more closely? (The crews suggested that they would have probably done the same thing if they had known how close the storm was.)

- We should have considered moving the crews off the fire once it was determined to shut down the helicopter during this lightning activity.

- Discuss the hazards of lightning and safety precautions, and if needed, say it on the radio.

Medical Evacuation/Critical Injury

- The 305th Air Rescue Squadron from Davis-Monthan Air Force Base did an excellent job. The Forest was commended and it was suggested that we consider requesting their services on all fires in rugged terrain where conventional medivac is not an option. (The Forest has already begun incorporating the planning of the 305th on fires since this incident; was in place/available for the Nuttall Complex.)

- Ensure that all personnel on the fire are notified of the critical injury evacuation plan. For inaccessible areas; locate and inform crews of evacuation plans well ahead of time. In steep, rocky areas like the conditions on this fire it was critical and well done that these plans were developed ahead of time.

- Be sure to include adequate time during reconnaissance flights to completely assess and search for helispot and medivac locations. This is especially critical in areas where fires are in difficult and rugged terrain. The Forest was commended for its efforts in this assessment and the recognition of inadequate helispots and the need for the 305th Air Rescue Squadron.

- Have stokes and other medical gear (defibrillators, rope bag, oxygen bottles, etc.) sent in with crews when dealing with rugged terrain and rescue difficulties. This was suggested to reduce the time of treatment and/or preparation for a medivac.

- Provide CALL-BACK cards to the District/Forest so the crews know who to call if there is an accident--- Forest, District contacts. All Forest fire management personnel have such lists and these items have also been issued to severity resources assigned to the Forest.

- Determine proper and efficient method of notification of the accident. The word spreads so quickly now-a-days with the advent of cell phones, scanners, etc. Develop an SOP to deal with this. Look at the military operations and see how they do it and can we use it. Get guidance from the National level.

- Need to let crews know what is going on with the incident. Where will the victim be taken for medical treatment and will there be someone there with the paperwork and to support the victim? (This was put in motion immediately by the Forest, but not relayed well to the crew supervisor.)

- Develop contingency plans just in case the first plan cannot work…. BACK-UP PLANS. Try to anticipate and prepared for accidents. What if the helicopters cannot fly?

Tactics/Strategy/Fire Management

- It was agreed by overhead and crews that this many resources (5 crews, 3 helicopters) were required on this 10 acre fire due to inability to move around the steep and rugged terrain and contain the fire quickly.

- A sufficient size fire organization (IC, Safety, Div Sup, etc) should be in place even for Type 1 crews. Everyone is responsible for safety. The final approval is with the crew, if they don't feel comfortable with the assignment, they don't do it. This needs to be accepted as "OK;" go on to the next option. On this fire, the Forest was complimented on its organization and its response to the fact that a night shift was discussed and the crews thought it was unsafe, therefore there was no nightshift.

- Management needs to make sure we are not putting people in dangerous situation. Make sure we can do it safely. Crews thought this fire was safe to work on and the Forest did not ask or insist on anything to the contrary. It was suggested that if we didn't use direct attack, it would become larger, therefore putting more people at risk.

- Develop short incident action plans (IAP) for these types of fires, they would need minor updating each day but the important information should be there…. Radio frequencies, weather, medical plan, safety concerns, maps, etc. Although the local overhead assigned had several ICS-214s with notes and plans and intentionally got together to discuss and finalize those plans, no IAP was ever formalized and put together for the next operational period.

- Maps of the fire area for this fire should have been more readily available. They were delayed coming from the district office on this fire.

- Need to inform crews of local trails to provide quick and easy access to the fire. There was some confusion early in this fire.

- Develop good working relationships between crews and the overhead. It was recognized that good relationships occurred on this fire, but the suggestion is that it needs to be ensured in the future as it was done on this fire.

Miscellaneous

- Incident personnel should be mindful of their demeanor and the way they conduct themselves during and in front of a critical incident; no joking around. This is a serious situation and should be handled in a very professional manner. Think how you would like to be treated if you were the victim.

- Do not assume that items have been taken care of; ask to make sure they have. This was suggested by the crew leadership from this fire.

- The California (Region 5) crews inquired as to the whereabouts or if an IARR had been sent to the Southwest (Region 3.) It was further suggested by these crews that R5 consider an agency representative to be mobilized in the future as R5 crews are sent to support other regions with severity needs.

- Keep ourselves safe, it is a very dangerous situation out there. Everyone has the responsibility to seek their own safety and ensure the safety of others.

- DO THINGS SMARTER, think - analyze – act – monitor