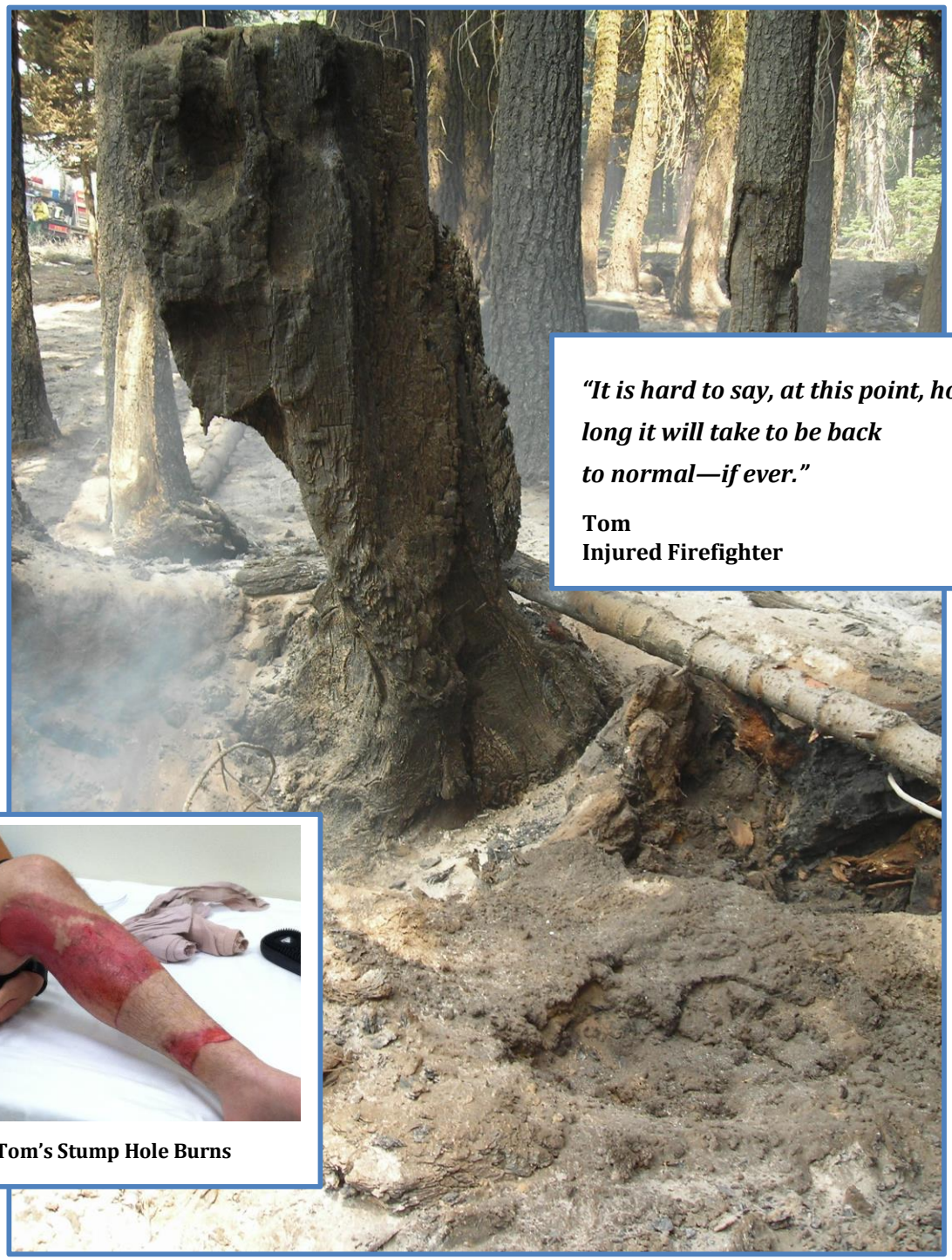
Rim Fire Burn Injury
Facilitated Learning Analysis



"It is hard to say, at this point, how long it will take to be back to normal—if ever."

Tom
Injured Firefighter

Tom's Stump Hole Burns

July 2014

Tom thinks he has stable footing when his left leg suddenly sinks into the hot ash up to his knee (approximately 23 inches deep). Tom immediately pulls his leg out. He runs about 40-50 feet. Several thoughts begin flowing through his head, including: "What am I going to do?" "Am I on fire?"

Tom cleans himself without any assistance from hospital staff. Due to the pain he is in and the medications he has been given, this task proves difficult for him.

It was unknown until after Tom's injury that his department's Workers Compensation provider would have assigned a Nurse Case Manager to Tom.

Contents

SAFENET Triggers Need for this FLA

A SAFENET—that pointed out how a firefighter with a burn injury on the Rim Fire received an inadequate level of care and advocacy after he was delivered from the fire to medical facilities—triggered the initial need for this Facilitated Learning Analysis (FLA).

The SAFENET form and process is used by wildland firefighting agencies for reporting and resolving incidents relating to firefighter safety. The information collected is used at the National Interagency Fire Center to determine long-term trends and problem areas within the wildland fire industry. The development of SAFENET was recommended in *Phase III* of the *TriData Wildland Firefighter Safety Awareness Study* (that was launched in response to the 1994 South Canyon Fire that killed 14 wildland firefighters).

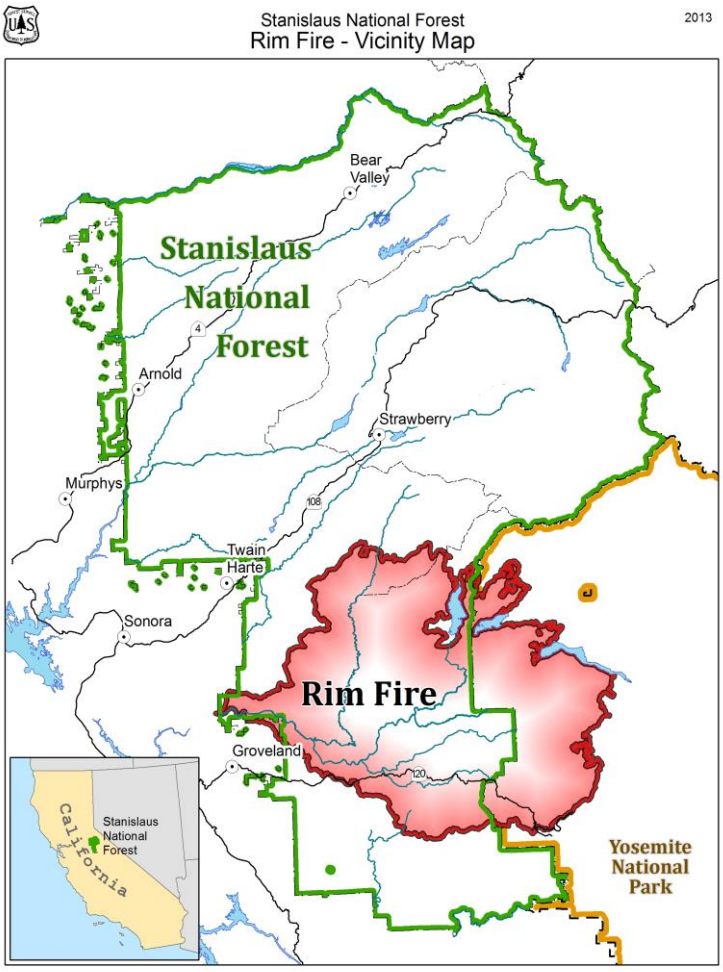
http://safenet.nifc.gov/

Does your Unit have policies in place to deal with injured firefighters when they are out of the local area?

Does your IMT/Unit have a plan to provide patient advocacy?

From Chapter Seven
Discussion Questions

1. Rim Fire Background



The Rim Fire was reported at 1525 hours on August 17, 2013, on the Stanislaus National Forest in California, near Jawbone Ridge.

The fire was discovered by a lead plane pilot working a nearby wildland fire. It was initially estimated to be 40 acres. Shortly after 1600 hours, the fire had grown to more than 150 acres. The fire was burning rapidly and "spotting" up to one-quarter mile.

The Stanislaus National Forest immediately dispatched an aggressive initial response to the Rim Fire. This included: six engines, two hand crews, two helicopters, one air attack plane(ATGS), four air tankers, one lead plane, two dozers, and an initial attack Incident Commander.

As of Friday, September 30, the fire had burned 257,135 acres and was 80 percent contained. (As of December 11, 2013, the Rim Fire was 100 percent contained and controlled—but not "out".)

Steep Terrain and Extremely Dry Vegetation
Fighting the Rim Fire was challenging due to very steep terrain and extremely dry vegetation. During the initial hours of this incident, there was no safe, available ground access for firefighters. Because of these conditions, aircraft were the only resources that could be effectively used.

On the afternoon of August 17, the day the fire is reported, five air tankers conducted 31 missions—dropping more than 32,000 gallons of retardant on the Rim Fire.

On the evening of August 18, a Type 2 Incident Management Team (IMT) was assigned to the Rim Fire. During the next several weeks, two Type 1 IMTs and an additional Type 2 IMT would manage the Rim Fire.

For more than one week, the Rim Fire was managed in Unified Command with Cal Fire. Incident management teams and Stanislaus National Forest personnel also worked closely with Yosemite National Park and Tuolumne and Mariposa counties.

During the Rim Fire, numerous large wildfires were also burning across Northern California, the Sierras, and the entire Western United States.

Fire Conditions

At the time the Rim Fire began, conditions were among the driest in the last 50 years. Since the Oct. 1, 2012 rainfall year began, most areas across the State of California received only between 50 and 70 percent of normal precipitation.

Fire restrictions had been in place on the Stanislaus National Forest since June 22. Predictive Services had issued a "Fuels and Fire Behavior Advisory" for the Sierra—including the Stanislaus National Forest. This advisory indicated extremely low fuel moisture levels, which created the potential for active to extreme fire behavior.

These conditions combined to create volatile burning conditions that included fire spread of approximately 10, 30, and 50 thousand-plus acres in one day.

Dense chaparral with a scattered pine canopy formed a very flammable fuel bed in the area of the Rim Fire.

In addition, the Rim Fire was occurring in an area of the Stanislaus National Forest that has had a history of frequent large wildfires. Initially—before becoming much larger—the Rim Fire burned in the footprint of the 1987 Stanislaus Complex.

Firefighter and Public Safety

From its outset, firefighter and public safety was a key objective of the Rim Fire.

At one point during the incident, more than 5,000 firefighters were engaged in suppression efforts. Over 2.5 million person hours were recorded during the Rim Fire. After several weeks of burning, there were no serious firefighter injuries. The most serious injury will be reviewed in this Facilitated Learning Analysis (FLA).

Thus, despite treacherous terrain and extreme fire behavior, firefighters and fire managers demonstrated a remarkable safety record on the Rim Fire. Furthermore, there were no serious civilian injuries resulting from this incident.

2. Burn Injury Incident Summary

Rim Fire on the afternoon of August 17, 2013—the day the fire was reported.

The Accident

A Colorado fire department sends an engine and its crew to the Rim Fire in California. When an engine crew member returns home at the end of his 14-day assignment, the Engine Boss, Bill, requests that his brother, Tom, in Colorado, be dispatched to the Rim Fire to fill this vacancy. (*For the purposes of this FLA, all people's names have been changed.*) On Tom's third day on the fire, while mopping-up, he steps into a stump hole full of hot ash. Tom's left leg sinks up to his knee. He receives painful burn injuries.

Within minutes, Tom is up on the road being treated by the Line Medic who initiates ALS care, including starting an IV. After 15 more minutes, Tom is transferred to a nearby helibase.

Initial Hospital Care

According to the Local EMS authority protocol, Tom is flown in a medevac helicopter to the closest burn center, which is in Fresno, where he is assessed and treated by several medical personnel in the Emergency Room. Tom is initially diagnosed with a 5-6 percent Body Surface Area second degree burn of the left lower extremity. After five hours in the ER, he is admitted to a hospital room upstairs.

Patient Advocate

The Incident Management Team assigned to the Rim Fire has a medical evacuation plan in place. This IMT's standard operating procedure is to use a "Patient Advocate" to meet injured firefighters at the hospital and assist with any needs they might have. For this medical incident, the assigned Patient Advocate comes from a nearby national forest. This Patient Advocate believes her primary mission is to complete any Workers Compensation paperwork that is required. However, when she discovers

Stump hole area where hot ash burned the firefighter's leg and ankle.

that Tom is from a Colorado state agency, she realizes that she can't complete the required Worker's Compensation forms for Tom. Nonetheless, this Patient Advocate continues to support Tom throughout his stay in the hospital.

Tom's Home Agency decides to not send its own Patient Advocate. This decision is partially based on the assumption that Tom's brother could function as an advocate. However, the emotional effects of this injury incident negatively affected Tom's brother's ability to be an effective advocate. (After Tom returns home to Colorado, his supervisors realize that his department's Workers Compensation provider could have assigned a Nurse Case Manager to Tom.)

Travel Difficulties

On his third day in the hospital, Tom is released. Because he cannot bend his leg and will need to keep it straight and elevated, it is decided to fly him home on a U.S. Forest Service aircraft. Bad weather forces the pilot and Tom to divert to Grand Junction, Colo.—where they spend the night.

The next day, due to poor weather, the pilot determines that he will not be able to deliver Tom to his Colorado destination. Arrangements are made with the local USFS/BLM unit to transport Tom by vehicle to Gunnison, Colo., where he meets personnel from his agency who drive him home. The initial travel plans for this recuperating burn injury patient should have taken only 8 to 10 hours. Instead, Tom's trip home—by air and vehicle with a one-night layover—takes a total of 27 hours.

The Aftermath

As directed by his care providers at the California hospital, upon his return home, Tom sees a surgeon at the University of Colorado Burn Center. He ends up having a skin graft to his lower left leg near the ankle. While the burns and skin graft heal well, Tom subsequently had scar tissue develop in his ankle area that caused nerve irritation. He then had to undergo a second surgery to have this scar tissue addressed.

Six months after his injury (at the time of this FLA report being finalized) Tom was still having physical therapy twice a week, as well as other medical procedures, to recover range of motion and normal ability to use his foot and ankle—and to alleviate pain and re-strengthen his ankle and foot.

"It is hard to say at this point how long it will take to be back to normal—if ever," Tom informed the FLA Team. "As far as long-lasting consequences, there will always be the badge of remembrance from the skin grafts and surgery—along with the redness of the leg whenever exposed to sun and heat."

"It is hard to say, at this point, how long it will take to be back to normal—if ever. As far as long-lasting consequences, there will always be the badge of remembrance from the skin grafts and surgery—along with the redness of the leg whenever exposed to sun and heat."

Injured Firefighter, six months after his burn injury incident

3. The Story

On August 20, 2013, a Type 6 Engine from a fire department in Colorado is assigned to the Rim Fire. At the end of their 14-day assignment, one of the firefighters on the engine decides to return home. The engine's other two firefighters plan to remain on the fire and extend for an additional seven days.

Needing an additional firefighter to continue the extended assignment, Bill (*for the purposes of this FLA, all people's names have been changed*), the Engine Boss (ENGB) calls his brother Tom to see if he would be interested in coming out to California to work with him on the Rim Fire.

Tom, who is at his home in Colorado, likes Bill's offer. He accepts the fire assignment—thinking it would be fun to go to California and work with his brother. On September 4, he flies to California.

Tom's Background

Tom works full-time and year-round for a wildland fire agency in Colorado. He has nine years' experience in wildland firefighting as an Interagency Resource. All Colorado Interagency Resources follow NWCG standards and qualifications, including fire departments that deploy as an extended attack resource to interagency fires.

Tom is a qualified Engine Boss, just like his brother, Bill, who is running the Type 6 Engine on the Rim Fire. Bill has 13 years of wildland firefighting experience. He has fought fire in California several times previous to his dispatch to the Rim Fire. While this is Tom's first California fire, he has fought fire in 15 other states.

All Colorado Interagency Resources follow NWCG standards and qualifications, including fire departments that deploy as an extended attack resource to interagency fires.

First Day on Fire

September 5 is Tom's first day on the fire. The transition goes well. Their engine is assigned to Division P to patrol and mop-up. They construct some hand line and search for smokes. Tom's first shift on the fire is relatively quiet. The next day, on September 6, a Red Flag warning is issued. The engine crew has an active shift—working to catch spot fires. On September 7 (Sunday), Tom's third shift on the fire, the engine is working as part of a Colorado Engine Task Force. They are assigned to mop-up 50 feet from the Tioga Road.

Stump Hole Accident

Engine crew members Tom and Dave are working on a large stump hole approximately one chain below the road.

At approximately 1245 hours, Tom is pulling pencil hose down to this large stump hole. He is spraying hot dirt with water and watching his footing as he cools the stump hole.

Tom thinks he has stable footing when his left leg suddenly sinks into the hot ash up to his knee (approximately 23 inches deep)[1]. Tom immediately pulls his leg out. He runs about 40-50 feet. Several thoughts begin flowing through his head, including: *"What am I going to do?" "Am I on fire?"*

Tom yells to his brother, Bill, who is located above him on the road. Within one minute, Bill calls the Division P Supervisor and Taskforce Leader to advise them of the situation. Nearby Line Medics overhear the radio traffic and realize they are close to the incident.

Dave assists Tom as they climb back up to the road. Tom feels that he might be in shock. He limps up the road to the SUV—where the assigned Line Medics are located. The Line Medic initiates immediate ALS care for Tom's injuries.

Stump hole area with hot ash where burn injury occurred.

Tom's left boot is removed. His burns are cooled and an IV is started. At approximately 1300 hours—15 minutes after the injury occurs—he is transported to Crane Helibase. Tom departs the helibase in an EMS medevac helicopter at approximately 1330. A total of 45 minutes have passed from when Tom had first stepped into the stump hole.

A few months after this event, when asked, Tom will state:

"The incident medical treatment went perfectly."

[1] During the FLA process, the injured firefighter tells the FLA Team: *"In a way, I was grateful knowing that—as I stand 6'4"—the portion of my leg that burned was much less than would have been the case with a shorter firefighter."*

Tom is initially diagnosed with a second degree burn of his lower left leg. This burn involves the medial (inside) aspect of the knee and proximal (upper) shin and calf, as well as around his ankle. He will end up having to undergo skin graft surgery. Months later, painful nerve damage will require a second surgery. Six months after his burn injury occurs—at the time of this FLA—Tom is still undergoing physical therapy sessions twice a week to alleviate pain and re-strengthen his ankle and foot.

Medevac'd to Closest Burn Center

According to the Local EMS authority protocol, Tom is flown in the medevac helicopter to the closest burn center, Community Regional Medical Center, in Fresno.

Tom arrives in the Emergency Room (ER) at approximately 1415. Upon arrival at the ER, Tom is seen immediately and is assessed by several medical personnel. Tom remains in the ER for about five hours that afternoon. He is then moved to a room upstairs in the hospital.

Tom is initially diagnosed with a 5-6 percent Body Surface Area second degree burn of the left lower extremity. This burn involves the medial (inside) aspect of the knee and proximal (upper) shin and calf, as well as almost circumferential around the distal (lower) lower leg just proximal (superior) to the ankle.

Once Tom is moved to a room, hospital staff thoroughly scrubs his burns and applies sterile dressings. (Prior to this, Tom informs his Patient Advocate—who has been with him since he entered the Emergency Room [*see page 11*]—that she can go home.)

The sock and boot Tom was wearing when he stepped into the stump hole.

Tom, who remains in his firefighting clothing, is still quite dirty from working on the fire. He asks the hospital staff if he can get cleaned up. They provide him with cleaning supplies, including a basin of water, and sterile wipes—but do not assist him.

Tom cleans himself without any assistance from hospital staff. Due to the pain he is in and the medications he has been given, this task proves difficult for him. (For the FLA Team findings on the level of care Tom received at the hospital, see page 17.)

Tom Believes His Boots Contributed to His Burns

When asked what he thought caused the burn, Tom states: "Perhaps my boots". [*For more information, see Chapter 4.*] He was wearing Scarpa™ boots. They were starting to wear out. Tom says he has had them for a few years. "I love those boots," he says.

Tom believes the metal eyelets may have contributed to the seriousness of his burns. He is wearing a pair of SmartWool™ socks. Even though he had been mopping-up with water, Tom states that his feet were dry. He was wearing all required PPE—including crew boss style pants.

Tom Advised to See a Surgeon When He Gets Home

On that first day in the hospital, Tom is seen by a doctor who advises him to—due to the severity of his burns—see a surgeon when he gets home.

The medical provider on the burn unit informs Tom that a follow-up appointment with the University of Colorado Burn Center has been made for him for Thursday, September 11. (However, once Tom finally arrives home and contacts the University of Colorado, they have no information regarding this alleged appointment. He then makes his own appointment for Friday, September 12.)

Patient Advocate
The Incident Management Team managing the Rim Fire has a medical evacuation plan in place that is documented in the Incident Action Plan on the ICS 206 Form. The IMT briefs on this plan during pre-shift briefings daily. Using a Patient Advocate to meet injured firefighters at the hospital and assist with any needs they might have is a standard operating procedure for this—and many other—IMTs.

- ***Ensure responsibilities for patient advocacy are clearly understood and assigned between IMTs and Host Units.***
- ***Home Units should consider assigning trained personnel to ensuring advocacy and care during the phases of return travel and continued care of individuals.***

From Chapter Six
Key Points for Consideration

The Patient Advocate assigned to Tom comes from the Sierra National Forest. The Sierra Forest is located closer to the Fresno hospital than the Stanislaus National Forest—where the injury occurred. In this case, the IMT therefore makes arrangements to have the Sierra National Forest provide a Patient Advocate.

The Patient Advocate arrives at the Fresno hospital's Emergency Room 25 minutes after Tom's arrival there. She stays with Tom for the remainder of the day—until he is moved to a room and settles in.

Her thoughts were that her primary mission is to complete any Workers Compensation paperwork that is required. When she discovers that Tom is from a Colorado state agency, she realizes that she can't complete the required Worker's Compensation forms for Tom.

Having a son who is a firefighter and wanting Tom to get the best care possible—just like she would like her son to have—she stays at the hospital and assists Tom as needed. This Patient Advocate continues to support Tom throughout his stay in the hospital.

Emotional Effects Take Toll on Patient's Brother
Bill is concerned about his brother. He is demobed off the incident as soon as possible. He and Dave, the other engine crew member who had been working with Tom when the accident occurred, then make the trip to the Fresno hospital. They stay in Fresno and assist Tom as needed until he leaves for home.

It should be noted that while Tom was in the burn center, local firefighters also visited him. The Home Agency assumed that Tom's brother, Bill, would be able to function as a family advocate and a supervisor for the injured firefighter.

In hindsight, the emotional effects of the incident on Bill—who felt personal responsibility for the accident because it happened to "my little brother"—negatively affected his ability to be an advocate. Furthermore, Bill still had his normal Engine Boss duties—dealing with the engine and his crew—which also contributed to the stress of his situation.

The Home Agency's decision to not send their own Patient Advocate to the firefighter was partially based on the assumption that the patient was with his brother and he could function as an advocate.

Travel Difficulties
Tom remains in the Fresno burn center for two nights. On his third day, Tuesday, September 9, he is released at 1100 hours.

The decision is made to fly Tom home on an agency (U.S. Forest Service) aircraft because, although he is released from medical care, he cannot bend his leg and will need to keep it straight and elevated during his flight home. This would have made flying home commercially very difficult.

Tom is therefore informed that he will be flying home on a Forest Service CWN Aircraft; an AC-500, used as an Air-Attack platform.

Tom and the pilot depart the Fresno Tanker Base at 1545 hours. On the flight back to Colorado, they encounter bad weather and are forced to divert to Grand Junction, where Tom and the pilot spend the night. Tom, understandably, is uncomfortable during this entire travel episode.

The next day, the pilot determines that he will not be able to deliver Tom to their destination (Cañon City, Colo.) due to poor weather conditions. Arrangements are made with the local USFS/BLM unit to transport Tom by vehicle to Gunnison, Colo., where he meets personnel from his agency who drive him home to Cañon City. Tom's travel time home takes 27 hours—including the final 126-mile 2.5-hour drive to his home. (The initial travel plans by air would have taken from 8 to 10 hours.)

"It wasn't till months later that we realized there was extensive nerve damage that ensued from the ankle burn/skin graft area . . . This was discouraging because it seemed that everything was healing as it should."

Tom
Injured Firefighter

Long After the Rim Fire is Out—Tom's Injury Journey Continues

When Tom is seen at the University of Colorado Burn Center, the medical provider determines that Tom has sustained some third degree burn injuries and is going to require skin grafts. He ends up having a skin graft to his lower left leg near the ankle. "That (the required skin graft) really wasn't alarming or a shock," Tom explains. "After I'd been looking at the damage for a week and realizing it would help cosmetically."

He continues: "At that point, I believe I was still high-spirited and accepted what had happened—knowing that it was not complacency that had caused the accident, but rather just luck of the draw. My fellow firefighters and other crew members felt certain that—if not me—it probably would have happened to another firefighter."

While the burns and skin graft healed well, Tom subsequently had scar tissue develop in his ankle area that caused nerve irritation. He then had to undergo a second surgery to have this scar tissue addressed.

"Six months later, I am still in physical therapy twice a week to recover range of motion and normal ability to use my foot and ankle . . . to alleviate pain and re-strengthen my ankle and foot."

"It wasn't till months later that we realized there was this extensive nerve damage that ensued from the ankle burn/skin graft area," Tom says. He points out that this condition was exacerbated by him not being able to put much pressure on his foot. "This nerve damage situation was discouraging," Tom confides, "because it seemed that everything was healing as it should."

Stump hole that caused Tom's burn injury.

Nerves Do Not Heal Quickly

"At that point," Tom continues, "we decided a surgery to decompress the nerves in the ankle would be the best route to speed-up the recovery—and hopefully solve the issue. Anyone who has suffered nerve damage realizes that it can be very painful and time consuming. Nerves do not heal quickly.

"Six months later, I am still in physical therapy twice a week to recover range of motion and normal ability to use my foot and ankle—as well as many other medical procedures—to alleviate pain and re-strengthen my ankle and foot.

"It is hard to say at this point how long it will take to be back to normal—if ever. As far as long-lasting consequences, there will always be the badge of remembrance from the skin grafts and surgery—along with the redness of the leg whenever exposed to sun and heat."

4. Equipment and Burn Injury Information from the Missoula Technology and Development Center

The information in this chapter is based on a personal phone conversation with the injured firefighter, photos of the burn injuries and firefighter's pants, and inspection of the firefighter's boots and socks.

Items and Condition

Boots

Scarpa™ brand, Manta style with what appears to be nylon cord laces.

The boots are worn, but show no evidence of heat.

In accordance with the *Interagency Standards for Fire and Fire Aviation Operations* ("Red Book"), these boots do not meet the 8-inch height requirement. The height of the boot at the back measures 7½ inches. (It should be noted, however, that at this back—Achilles area—of the boot, the firefighter received no burn injuries.)

Socks

SmartWool™ brand, hiking medium weight, crew length.

There is a slight discoloration at the top of the boot area on one sock. It is unclear which sock was worn on the left foot during the accident. There is no char present on the sock.

Pants

The pants appear to be CrewBoss brand, Nomex IIIA firefighter pants.

The pants' left leg has a few spots of dye sublimation. Dye sublimation occurs when heat "bakes" the dye from the fabric, causing the dark spruce green color to turn orange.

Injuries

The majority of the firefighter's burn injuries were on the medial side of his left leg, between the top of the sock and the lower thigh, and behind the knee.

The heat from the hot ash and coals quickly conducted through the fabric, raising the skin temperature to the point of burn injury.

The flame-resistant pants do not have the insulating properties to provide protection from direct contact with hot ash and coals. The firefighter's leg was not in the hot ash long enough for the temperature of the pants' material to reach 450 degrees F—except for in a few spots.

Firefighter's burn injuries.

The "heat sink" effect of the boot and sock offered insulation and protection from quickly dissipating high temperatures—except for in the lower shin area at the top of the boot.

The reason for this particular burn injury is not clear. Initially, the firefighter thought that hot coals and ash were lodged between the boot top and sock. He attempted to scoop out the hot ash and recalled that he found none.

Burn Injury Scenarios

Three possible scenarios for this burn injury:

- The area of the top of the boot with the least amount of mass was heated and held the heat long enough for the heat to conduct through the sock.
- There was hot ash lodged between the boot and sock.
- The metal eyelets at the top of the boot (the area of the boot with the least amount of mass) were heated to a temperature that would not damage the brass eyelet or the boot, but held the heat long enough for the heat to conduct through the boot and sock.

Temperatures

Material	Temperature – Degrees F
Skin – 2nd Degree Burn	131
Leather – Shrinkage	350
Wool – Char	400
Nomex IIIA – Dye Sublimation	450
Nylon Cord – Melt	500
Ash – Red Coals	600 to 1000 typical
Brass Boot Eyelet – Melt	1710

5. Lessons Learned

Home Units

"If I had filed paper work sooner, we would have assigned a Nurse Case Manager to Tom."

Tom's Supervisor

- It was unknown until after Tom's injury that his department's Workers Compensation provider would have assigned a Nurse Case Manager to Tom.
- Tom's Supervisor stated that they should have sent someone from the Home Agency to California to represent Tom and coordinate logistics involving Tom's return home.
- Be more familiar with the Incident Management Team (IMT) process. Do teams assign a Patient Advocate to oversee injured firefighter's care?
- The Home Unit should have a policy in place to provide support from home.

Incident Management Teams

- IMTs should have standard guidelines to provide support to injured/hospitalized firefighters.
- Determine up front (at time of delegation) who is going to provide Patient Advocacy—the Hosting Unit or the IMT. [*From Type 1 IC*]
- Need to establish follow-up tracking with injured firefighters—from incident to hospital and all the way home. [*From Type 1 IC*]

Patient Advocates

- Patient Advocates should have clear roles and responsibilities.
- Patient Advocates should have as much information about the injured firefighter as possible—*before* they arrive at the hospital.

- Determine whether a family member is able to function in a dual role of supervisor and family member of an injured firefighter. Discuss and consider creating policies or SOGs to address this issue.

Burn Units = "Burn Centers" and "Burn Clinics"

"All Burn Units are not created equal."

Medical Unit Leader (MEDL)

- Is there a difference between "Burn Centers" and "Burn Clinics"?

Answer:

A "Burn Center" is usually a part of a hospital or a free-standing facility that is like a specialty hospital. It is the in-patient care center for those who cannot be sent home to care for their burns.

A "Burn Clinic" is usually associated with a burn center and is the outpatient care clinic for those who do not require in-hospital care.

One would like to think that whether either of these facilities is American Burn Association-certified or not, *all* burn centers and clinics follow the same guidelines and policies—which should always be based on what's in the best interest of the patient.

Firefighter Received Appropriate Medical Standard of Care

Regarding the medical care the firefighter received in the burn unit to which he was taken:

While the firefighter did not recollect seeing a medical provider—either physician or midlevel—daily, medical records show that the firefighter was evaluated daily by either the nurse practitioner or the physician.

The firefighter also had concerns about his dressing changes. Dependent on the type of dressing used, dressings may not need to be changed on a daily basis. A couple types of dressings were used for this firefighter.

After reviewing the medical records, the FLA Team believes that this firefighter received an appropriate medical standard of care for his burns.

PPE

- Wearing the appropriate wildland fire boots is important.

Firefighter Responsibility

- Firefighters should know their Workers Compensation process and carry a copy of the necessary paper work with them. [*From Compensation/Claims Unit Leader*]

6. Key Points for Consideration

Patient Advocacy and Family Liaison
Roles and Responsibilities

Regarding patient advocacy and family liaison roles and responsibilities, the U.S. Forest Service's "Death and Serious Injury Handbook" provides information:

http://www.fs.fed.us/cgi-bin/Directives/get_dirs/fsh?1309.19!

In particular, on this link, note the following chapters:

- Chapter 20 – Reflects Key Employees Coordination Activities (Role of Hospital/Family Liaison)
- Chapter 30 – Reflects the role of the Hospital Liaison for Serious Injury and Medical Emergencies.

1. Ensure responsibilities for patient advocacy are clearly understood and assigned between IMTs and Host Units.

2. Ensure individuals who serve as Patient Advocates have been trained and are knowledgeable.

3. PPE should be in serviceable (clean and completely intact) condition prior to an assignment.

4. Home Units should consider assigning trained personnel to ensuring advocacy and care during the phases of return travel and continued care of individuals.

7. Discussion Questions

- Does your Unit have policies in place to deal with injured firefighters when they are out of the local area?

- Does your IMT/Unit have a plan to provide patient advocacy?

- Once a firefighter is injured and is sent to the hospital, who is responsible for his/her care and wellbeing? The IMT? The Local Unit? The Home Unit?

- How does an IMT follow-up long after the incident? How long in time does this responsibility go? "Chain of custody is the issue." [*From Type 2 IC*]

- As a supervisor of a crew from out of state, are you prepared to facilitate getting an injured firefighter transportation home?

8. Facilitated Learning Analysis Team

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