

# **Umpqua North Complex**

August 13 –September 1



**Tom Kurth**

**Incident Commander**

**Alaska Incident Management Team**

**Tony Doty**

**Deputy Incident Commander**

**Alaska Incident Management Team**

**Dan Thorpe**

**Incident Commander**

**Douglas Fire Protective Association**

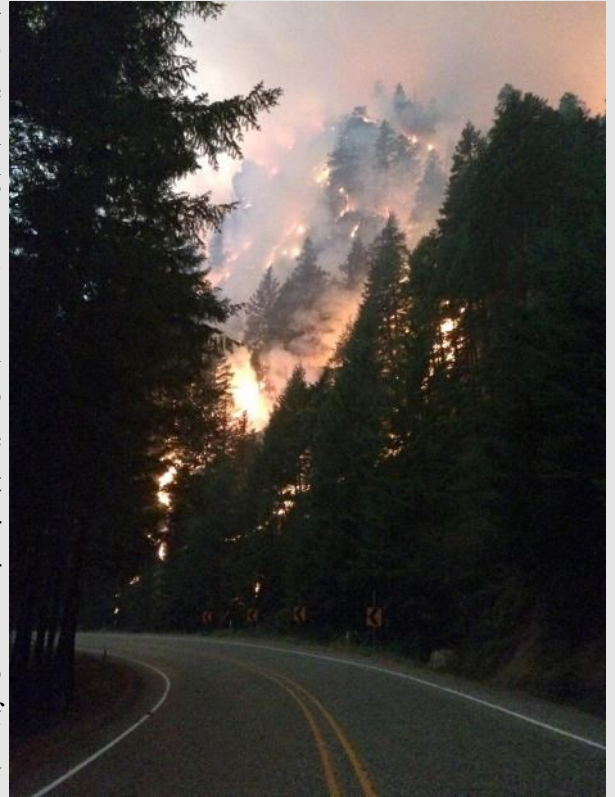
# Background

On August 8th and 9th, extremely dry fuels were ignited by a dry lightning outbreak as monsoonal moisture pushed into southern Oregon from the South. Within three days, more than 25 wildfires had burned over 500 acres of the northern Umpqua National Forest (UPF) in steep, rugged terrain along 35 miles of the Highway 138 corridor. Local resources were quickly overwhelmed as they attempted to manage 22 confirmed and multiple unconfirmed ignitions spread across

179,279 acres of the Umpqua National Forest. The fires were incorporated into the Umpqua North Complex and the Alaska Type 1 Incident Management Team was delegated responsibility for their management by Forest Supervisor Alice Carlton at 0600 on August 14th.

Once in place, the AKIMT began to develop a strategy for management of the complex. The fires were separated into seven geographically identifiable clusters, and prioritized

based on their threat to private property, critical infrastructure, commercial timber, and other values associated with the Highway 138 corridor. After discussions with the Agency Administrator, an initial priority was placed on the Fall Creek Fire; specifically to limit the fire's westward progression towards private and BLM lands, and the communities of Moore Hill Lane, Susan Creek, Idleyld Park and Glide. The Happy Dog Fire, which forced the evacuation of Dry Creek and spotted across Highway 138, was identified as another top priority, including protection of the Pacific Power transmission lines.



Due to the potential threat to BLM and private lands, a unified command structure was established with the Douglas Fire Protective Association under the command of Dan Thorpe on August 18<sup>th</sup>. The Douglas County Sheriff's office had already issued Level 3 evacuation orders for Dry Creek and the Horseshoe Bend campground and a Level 2 evacuation advisory was in effect for residents living in Moore Hill Lane and Idleyld Park. When fire reached the power transmission lines, they were de-energized by PacificCorp Energy for firefighter safety.

By then, the acreage for the complex had climbed to more than 3,400 acres and continued to increase daily. Suppression and containment efforts were continuously hampered by steep terrain, hazardous trees, and rolling rocks. With limited opportunities for direct suppression, strategic firing operations were used to strengthen containment lines. Likewise, operations person-



nel focused much of their efforts on connecting existing forest roads to be used as primary and alternate containment lines. Contingency lines were also developed in the event resources were not available to implement the other strategies; critical resource needs often went unfilled due to significant fire activity elsewhere nationally.

On August 16<sup>th</sup>, the Oregon Department of Transportation closed a 15-mile portion of Highway 138 due to rocks and trees falling onto the highway, making travel through the area unsafe. The road was reopened as far as Dry Creek on August 30 to allow residents to check on their property.

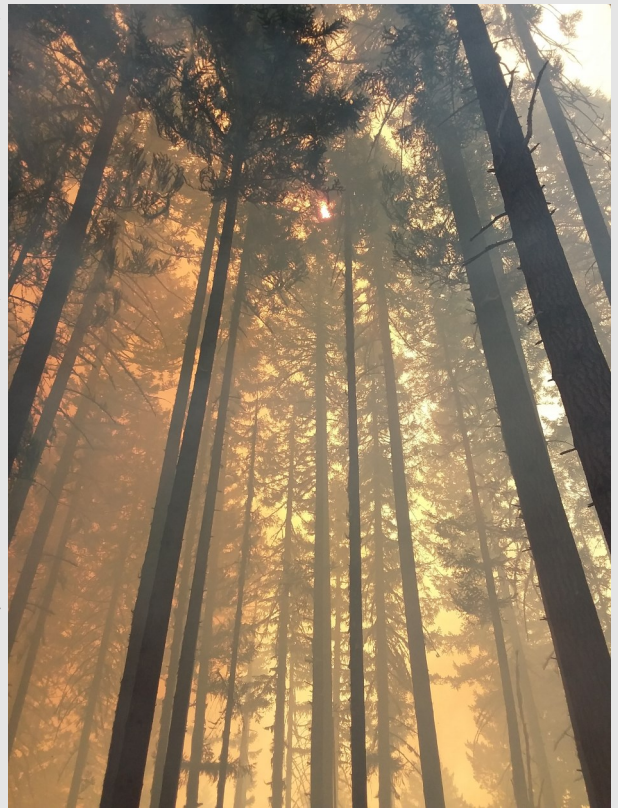
Several closure orders were also issued for the Umpqua National Forest, the first of which went into effect August 12. All totaled, the Forest issued eight different closure orders for public safety.

One significant event during the incident was the solar eclipse that occurred on the morning of August 21<sup>st</sup>. While the



Umpqua North Complex was not within the “path of totality” for the eclipse, fire managers were anticipating considerable traffic from eclipse watchers on Highway 138 that could potentially have impacted the incident. The Team prepared a contingency plan for the event based on it’s emergency plan but, ironically, the road closure forced motorists to drive around the complex which resulted in few eclipse related complications. There was a brief operational pause during the eclipse however, and the event served as a distraction more than anything else.

As of Thursday, August 31, the total acreage on the complex stood at 23,358 acres with 21% containment. The AKIMT transferred command of the fire to California IMT4 under the command of Jay Kurth on September 1<sup>st</sup>.



# Fire Weather

High pressure persisted over the fire area for much of the incident, producing temperatures ranging from 80 to 105 degrees. However, there was good relative humidity recovery on most evenings with RHs in the 70-80 percent range. A weather phenomenon known as a thermal ridge developed from Aug. 26-28, resulting in record-high temperatures and humidity below 20 percent. There was only one day (Aug. 13) that had measurable rainfall (trace to 0.01 inch) and there was no lightning reported during the incident. Smoke output created daily inversions that impacted fire operations. There were several days when helicopters could not fly due to heavy smoke. The inversions either did not break at all or broke in late afternoon. The most significant challenge was forecasting when, or if, the inversion would break. There was limited success in doing this without access to air quality data. The Douglas Forest Protection Agency (DFPA) offered access to web cameras that could look at the various Divisions on the Complex. Numerous observations were submitted at the end of shift from operational units.



## Fire Behavior



The fire exhibited moderate to active fire behavior but with an extreme resistance to control. Most fire growth was due to spotting and rollout. The extremely steep terrain, coupled with the extremely dry fuels, was conducive to rollout and the fire positioning itself below unburned fuels, resulting in short uphill runs toward ridges. Bearded lichen was also a vector of spotting. Fire climbed the lichen and then spotted as the burning lichen fell. Strong inversions helped moderate fire behavior throughout the incident.





# Strategic Direction and Course of Action

The wildfire decisions made by agency administrators can affect human life, private property, and values outside the boundaries of their administrative unit in addition to the land base they manage. These decisions may well be the most critical (and criticized) decisions agency administrators make in the course of their careers. While these decisions consider the political, social, economic, security, infrastructure, and information dimensions – they must be made based on sound risk-management based on the best information available to support the decisions.



On August 13, 2017, The Alaska Incident Management Team (Alaska IMT), under delegation, and in partnership with the US Forest Service, Umpqua National Forest, North Umpqua and Diamond Lake Ranger Districts; the Douglas Forest Protective Association, and the Bureau of Land Management, Roseburg District Office facilitated a Strategic Planning session. The intent of the session was to establish a common operating picture and develop strategies to achieve the following desired end-state:

An After-Action Review of the Umpqua North Complex reveals that incident risk were safely, efficiently, and mindfully managed in such a manner that all incident objectives were achieved with the least exposure to incident responders possible. The fires are confined and contained, and identified values at risk were protected by using tactics that had reasonable objectives and probabilities of success. The right amount of the right resources were applied in the right locations at the right time for the right duration and for the right reasons. All risk management objectives were accomplished so costs are considered to have been managed at an appropriate level. Organizational capacity and relationships among our interagency partners, cooperators, and communities have been strengthened. Costs have been commensurate with the objectives and finance is in a desirable package to transfer to the next team or back to the forest.

The session coalesced intelligence from the best available decision-making tools combined with operational ground-truthing from IMT Operations Branch Directors to establish a common operating picture that integrated the concerns of all stakeholder organizations in order to align the mission Umpqua North Complex to more safely and efficiently meet the end-state.

Proposed strategies for suppression, confinement, or containment of each of the fires – or clusters of fires were proposed using primary, alternate, contingency, and emergency (PACE) lines. While the political, social, economic, security, infrastructure, and information dimensions of each strategy were considered, the selected strategies were based on sound risk-management that would result in the highest probability of success at protecting identified values with the least exposure to incident responders while providing minimal impacts to communities, homes, infrastructure, timber resources, and ancestral tribal lands within respective USFS and adjacent to the DFPA and BLM areas.

# Management Objectives

- Provide for firefighter and public safety through risk management, implementation of appropriate mitigations, and clear understanding of assignments.
- Protect communities, homes, infrastructure, timber resources and ancestral tribal lands within and adjacent to the North Umpqua and Dia-
- Be accountable for incident costs and ensure cost containment measures are identified, applied and documented.
- Enhance community and stakeholder relationships through respect, engagement, communication and trust.
- Apply Wildland Fire Decision Support tools including values at risk, and long-term fire analysis to update incident prioritization on a daily basis.



# Operational Objectives

- Initial attack fires within the designated IA response zone and support local IA efforts as requested.
- Confine and contain existing fires using tactics that result in the highest probability of success for the least exposure to incident responders.
- Select and implement contingency lines that represent the best alternatives to primary lines already established.
- Assess and inventory suppression repair needs on contained incidents and implement when/where safe and appropriate.



## Umpqua North Complex Fires (as of 8/30)

Fall Creek (#380) – 4,397 acres  
Happy Dog (#441) - 17,339 acres  
Ragged Ridge (#357) - 2,421 acres  
Twin #1 (#409) – 1,332 acres  
Twin #4 (#408) - 6 acres

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Copeland (#490) - 52 acres  
Brokentoath (#392) – 1,270 acres  
Oak Nob (#372) - 59 acres  
Devil (#320) - 115 acres

Mudd (#414) - 19 acres  
Mudd 2 (#393) - 182 acres  
444 (#444) - 53 acres  
Dog Prairie (#305) - 552 acres  
443 (#443) - 1 acre



# Incident Commander

## Key Decisions

- **Drones** – USFS approval early on permitted the use of small UAS, particularly when helicopters were in short supply or unable to fly. This allowed hours of low risk flying related to reconnaissance and residual heat sensing.
- **Unified Command** – debated at the start, it was initiated several days into the incident. Key to the team was access to additional operational resources for a critical section of line when traditional resources were tight.
- **Limited use of retardant** – kept costs down and minimized environmental damage.
- **Spike camps** – reduced travel times and permitted shared resources with the High Cascades Complex. Shared resources included catering, showers, fuel, medical, and camping.
- **Powerlines** – de-energizing powerlines early allowed for safe operations in right-of-ways. PacifiCorp provided generated power for local resudebts within the shutdown area.



## Notable Successes

- **Cooperators**
  - Douglas Forest Protective Association – provided supplemental resources
  - Douglas County Sheriff's Association - evacuation inputs and oversight
  - County Emergency Services – evacuation recommendations
  - Bureau of Land Management – agency direction
  - ODOT – continuous road oversight and management
  - USFS Job Corp - forest closures and barricading
  - PacifiCorp – power pole treatments and line management
  - Strategic Planning Process
- **Team strategic planners** – comprised of LTAN, FBAN, IMET, and SITL.
- **READs** – Ron McMullan and Joe Blanchard led a team of READs from start of the incident. Tactics to minimize environment impact and maintain suppression tactical timeliness was provided by their leadership.
- **Liaison** – Carol Cushing was instrumental in providing solutions to cooperators and public. Her local knowledge assisted command staff in prompt replies in dealing with both entities.
- **Public Meetings** – 3 in Glide, 1 in Clearwater. An audience in Glide typically had 100 to 150 individuals, held at the community center.

# Information

- Used a pre-existing ‘trapline’ established by the Forest Service between Roseburg and Diamond Lake that included key contacts and email addresses with the team.
- Obtained permission from the Umpqua National Forest PAO for the Alaska Team PIOs to post to the forest’s Facebook page, instead of setting up a new Facebook page for the Complex.
- Held four community meetings – three at the Glide Community Center on August 15, 23 & 30 and one at the Toketee Ranger Station on August 23. The meetings were well attended and members of the public were engaged, appreciative and supportive of the team’s efforts to manage this incident.
- Supported daily Cooperator Meetings and assisted with other liaison duties and responsibilities both before and after the Liaison position was filled.
- Co-location of the Liaison Officer with the Lead Public Information Officer in the Information yurt proved valuable to both functions and enhanced communications between the team, agencies, and cooperators.
- Daily Operations Brief delivered each morning to the Information PIOs contributed to staff gaining a ‘common operating picture’ about what was happening on this incident and why.



- While waiting for an Information Yurt, power, and internet connectivity to be put in place at the ICP, the two Lead PIOs utilized a conference/training room behind the North Umpqua Ranger District Office in Glide as a workspace. However, non-Forest Service laptops could not connect to the location’s network. Workarounds included personal hotspots and team mobile hotspot devices for meeting critical connectivity needs.
- With the Preparedness Level at 5 in both the Northwest and nationally, resources were difficult to find. A neighboring complex generously reassigned two of their PIOs to our incident to help the Information function get staffed up quickly.

## Liaison

- The Liaison Officer’s local knowledge and established working relationships with many of the cooperators and the area’s residents affected by the fires was invaluable.
- Played a major role in evacuation advisories to help coordinate timing and content of messages between the Alaska IMT (IC, SFO, PIO) and co-operating agencies such as the Douglas County Sheriff’s Office and Douglas County Office of Emergency Management.



# Safety

- Safety of firefighters and the public was the top priority during the Umpqua North Complex.
- Given the extremely steep terrain, hot weather and large number of personnel working on the incident, the potential for injury was extremely high.
- Thirteen Safety Officers were used during the incident and the decision was made to deploy at least one Type 2 Safety Officer in each of the five branches that were established.
- The three biggest safety concerns were hazard trees, rolling rocks and driving.
- An 11-mile stretch of Highway 138 East was closed to the public for much of the incident due to burned trees and rocks falling onto the road. A one-mile section of the road was affectionately referred to as the “bowling alley” because of the large volume of debris that rolled down onto the roadway and threatened to slam into vehicles.
- Worked very closely with the Oregon Department of Transportation to coordinate the closure and determine when traffic could drive through.
- Only one lost-time injury was reported with 300,000 work hours.
- Created a transportation time map for emergency responses for personnel working on the incident. The Safety Office mapped out transportation times to the nearest hospital (Roseburg) from all the different branches in the incident, which served as a crucial decision making tool for the medical and communications units.

## Key Safety Decisions

- Assigning at least one Type 2 Safety Officer 2 to each Branch.
- Moving the morning briefing from 0600 to 0700 to help manage fatigue.
- Holding daily conference calls to coordinate efforts and download information.
- Developing a good relationship with USFS/BLM Safety Officer.



**The remains of an “Umpqua Missile”**



# Human Resources

- Fulfilled all posting requirements, base camp visits and covered pertinent mission-related objectives during briefings and in the daily IAP messages.
- Used proactive messages to place emphasis on positive mental attitude, civil treatment to others, transitions and reunions, and demobilization.
- Overall, the incident personnel morale was exceptionally good. Incident personnel displayed a strong sense of duty, integrity, teamwork, and respect for each other and the public.







## Operations

On day three of the incident, a deliberate strategic conversation occurred with all stakeholders and fire management staff with Operations and Branch Directors and IMT members. PACE (Primary, Alternative, Contingency, Emergency) model alternatives were explained and intent was affirmed regarding operational direction and with consideration of the values at risk. This meeting set the tone for honest and frequent conversations with agency staff on how they wanted this incident to look and how we would implement tactics and strategy to meet that end. The resulting strategy was displayed on operational maps so that all incident personnel had clear understanding of locations that advantageous actions could be made.



Umpqua National Forest Resource Advisor Ron McMullin was very interactive and integrated into the operation in a positive way. Requests for clearance for hand and equipment operations were responded to very quickly and enhanced suppression operations. UPF Fire Staff and Agency Administrators were engaged and helpful to the Operations Section. Incorporating Forest IA resources from the Diamond Lake District into suppression enhanced operations. Resource shortages due to a high level of regional and national activity were an obstacle. It was difficult to obtain the types and



# Operations (continued)

number of resources needed to manage key tactical operations. The ability to get qualified fireline overhead for fireline supervision was a concern throughout the incident.

The firefighting workforce was primarily contracted on this incident. Single resource orders for key overhead positions were difficult to fill and contract resources did not have the needed qualifications to fill those roles. When contract resources are the primary workforce, there should be special attention to filling critical overhead positions to supervise and organize those resources.

<u>Date</u>	<u>Acreage</u>	<u>Personnel</u>
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Aug. 13	425 acres	132
Aug. 14	1,410 acres	191
Aug. 15*	1,410 acres	324
Aug. 16	1,710 acres	443
Aug. 17	3,414 acres	559
Aug. 18	6,878 acres	686
Aug. 19*	6,878 acres	760
Aug. 20	10,793 acres	804
Aug. 21	11,680 acres	812
Aug. 22*	11,680 acres	854
Aug. 23	13,546 acres	892
Aug. 24*	13,546 acres	925
Aug. 25	14,817 acres	1,039
Aug. 26*	14,817 acres	1,054
Aug. 27	18,073 acres	1,084
Aug. 28	20,924 acres	1,074
Aug. 29	23,501 acres	1,040
Aug. 30	25,358 acres	1,040

\* Acreage unchanged due to no infrared flight

## Key Operational Decisions

- Understanding the leaders intent and having conversations to verify the intent from the Incident Commander and Agency Administrator allowed the operations section a clear way forward in meeting the objectives.
- Communicating operational priorities at all briefings every day ensured the limited resources available were positioned properly on the incident.
- Spiking out resources when road closures happened reduced risk of cutting resources off from camp logistical needs.





# Air Operations

- At the height of the incident five helicopters were assigned to the complex: one Type 1, two Type 2s and two Type 3s.
- The Air Operations branch was able to borrow the Umpqua National Forest's Type 21A helicopter on occasion, as well as a Type 2 ship from the neighboring High Cascades Complex.
- The IMT staffed two Air Attack platforms throughout the incident to support ground and air operations.



- No air retardant tankers were used in order to avoid damage to sensitive habitats.
- Heavy smoke caused by inversions hampered flight operations on a daily basis and there were several days that helicopters were not able to fly due to limited visibility.
- Unmanned aerial operations were conducted utilizing BLM Alaska Fire Service drones and FAA-carded pilots to scout line and minimize firefighter exposure.
- A Temporary Flight Restriction was imposed over the fire area on Aug. 15 and was modified several times during the incident. Two air links were established to maintain communications across 36 miles of the TFR to help maintain a safe working environment with the numerous aircraft and personnel on site.

## Flight Statistics

- Water delivered - 710,843 gallons
  - Retardant delivered - 0 gallons
  - Cargo delivered- 250 pounds
  - Passengers ferried - 45
  - Flight time - 173.8 hours
- \* As of end of shift 8/29/17



## Plans

- The IMT contracted a GISS trailer that included four GIS computers and ultra-fast plotters, and used a laptop as server for geospatial data. Additionally, the ICP copy service trailer assisted with map packet production, and had plotters available that could produce any size of product. Having digital maps available for download from both the ftp site and an on-site wireless USB device reduced the number of printed maps.
- Maps and IAPs were distributed to resources located on the east side of the complex via the ftp site and email. This was coordinated through the Plans Section of the High Cascades Complex and their contracted copy service located at the Broken Arrow Spike camp. This substantially reduced the vehicle time and exposure on Highway 138.
- The Douglas Forest Protective Agency (DFPA) offered access to web cameras that could look at the various Divisions on the Complex and assist the IMET and FBAN with forecasts.
- A notable success was providing a separate guest network to ICP for personal mobile devices. The e-ISuite production network remained operational and efficient by eliminating non-essential network traffic.
- Interaction with the Geographic Area Training Representative (GATR) was very good both with the team asking about priority trainees and the GATR alerting them to priority trainees available nationally. In some cases the team was able to take a priority trainee and also get a qualified trainer with the trainee, which helped with the lack of qualified resources that were available.



### Daily Products

- Incident Action Plans 600
- Maps 400

### Training Statistics

- Total trainees 148
- Trainees certified 18
- Priority trainees - 22
- GACCs represented 6

## Logistics

The Ordering Manager was set up in Roseburg while the camp was being established. This allowed the Team's initial orders to be processed while camp communications were being established. This arrangement allowed for many initial face to face meetings that enhanced the working relationship between Expanded Dispatch and the Team.





## Logistics (continued)

- The location for the ICP at the Strader Ranch was established prior to the Alaska Team arrival. The site provided space for the ICP functions, crew and overhead camping, ground support, staging and helibase. This sight was very efficient as it was large enough to provide room for all services to be co-located.
- Opening-up the entrance to the Incident Base East of French Creek Road on Hwy 138 minimized the fire traffic through the housing area on French Creek Road. This also made the entrance safer with better sight lines in both directions on Hwy 138.
- The influx of people to the area to observe the Solar Eclipse and other fire activity nearby resulted in a shortage of portable toilets and portable hand wash stations.
- The caterer and its employees were always willing to accommodate the requests asked of them including gluten free meals, plated dinners and additional sack lunches.
- Initially sack lunches were dated with a “use by” date rather than the date prepared. This was brought to the attention of the kitchen manager and the issue was resolved.
- Ordering and distribution of tire repair kits to line personnel reduced lost time due to flat tires and provided for firefighter safety by reducing exposure from driving on “doughnuts.”
- Deployed four command repeater radio networks around the fire area to provide coverage for five different branches. Also set up a logistics repeater with a special UHF frequency to extend communications to a helibase established at the Glide Incident Command Post.



## Logistics (continued)

- Access to the helicopter repeater sites was limited by poor flying conditions due a persistent smoke inversion for most of the assignment. This limitation caused delays in getting the second airlink system installed on Mt. Bailey.
- There was only one lost-time injury during the incident and that injury – a broken ankle suffered in camp – did not occur on the fireline. The only other injuries of were a minor arm laceration from from a Pulaski that resulted in stitches and a minor upper arm injury due to tree strike.
- The Alaska Response Team (ART) was formed to provide medical response for in-camp incidents. This group was comprised of individual with previous medical experience. The arrangement helped to alleviate concerns when the Team was unable to fill overhead orders for medical personnel. The Team had a designated radio, medical kit and the capability of communicating by text in an emergency. Once the medical unit was fully staffed the team was disbanded.
- All medical situations in camp, during travel and on the fireline were handled using the NWCG Medical Incident Reporting Procedures (9 line) in the 206. Procedures for 9 line through Umpqua communications were discussed and presented to all personnel daily during morning briefings and a very tight working relationship was developed with MEDL, Communications and Safety that allowed us to successfully manage and mitigate medical incidents.

### Medical Unit Patient Contacts

Foot problems	70
Colds	49
Preventative	49
Rash	39
Soft tissue problems	21
Poison oak	17
Insect bites	16
Heartburn	15
Strain/sprain	11
Headache	10
Sore throat	9
Allergies	8
Eye issues	7
Constipation	2
Diarrhea	2
Broken bone	1
Infection	1
Respiratory	1





# Finance

- The entire Finance Section worked incredibly well together, considering that very few were Team members. All personnel in the section were willing to work wherever needed to lessen impact to whichever section needed help.
- There were 39 Casual Hires (ADs) and 3 AD-crews. All of them were successfully tracked and if demobed, AD payment documents were scanned and e-mailed in to ASC where appropriate.
- Tracking several different fires with different job codes was a challenge. PTRCs started highlighting the fire name on the CTR to improve correct posting. This practice also facilitated auditing.
- Established good accountability of Yurts, toilets, potable water, gray water through a team effort with Facilities and Ground Support.
- There was good interaction between Finance, Facilities and Ground Support. Each kept the

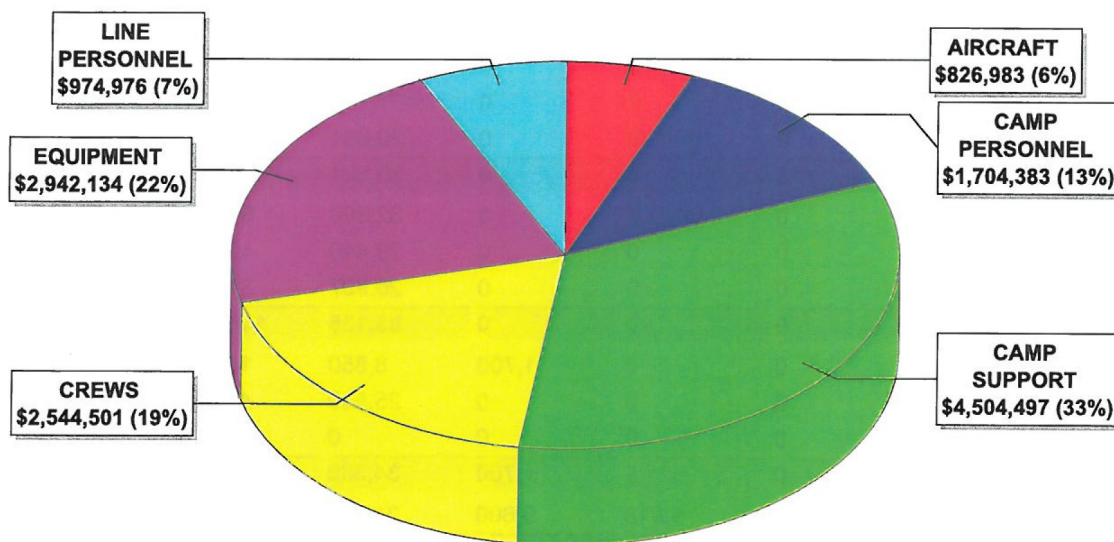


other informed of what was going on and of any problems. This facilitated a smooth development of systems for tracking, posting, accurately track and solving issues.

- Finance had an excellent working relationship with the Buying Team. They communicated daily, got questions answered, problems solved, and things accomplished that benefited the overall complex.

Incident: UMPQUA NORTH COMPLEX (US-OR-UPF-000406)

## Group Category Summary Graph Report



# Significant Challenges and Resolutions

- **Inversion** – While providing for reduced fire behavior, it often limited aircraft time to little or none. This made burn out operations risky without air support. Frequent spot fires in conditions conducive to burning resulted in numerous spots that had to be approached from the ground.
- **Medics** – Medics placed throughout the incident were critical in providing prompt responses what was often long transport times. No serious accidents occurred, however, the inability to provide helicopter support could have been limited.
- **Closures** – Forest closures were supported by USFS Job Corps, instrumental in placing barricades and closure notices.
- **Power shutdown** – Still in effect and at the expense of the cooperator.
- **Fire adapted ecosystems** – It appeared that most fire behavior was moderate, often taking out understory without crown involvement. Post fire effects may be minimized but further study should be pursued.
- **Contractors** – Lack of qualified overhead personnel with contract equipment can lead to issues with supervision and span of control when agency overhead resources are not available.





# Umpqua North Complex 2017

