

# Zion

## Fire & Aviation Management

National Park Service  
U.S. Department of the Interior



## Annual Report 2015



## 2015 Season Overview

The 2015 season was another active one for Zion National Park and the Utah Parks Group Fire and Aviation Management Program staff.

Zion had 9 wildland fires in 2015 that burned 56.2 acres within the park. The largest of these fires was the Cathedral Fire at 51 acres. One of these fires was human caused and all the others lightning caused. Bryce Canyon had two fires for .2 acres while Glen Canyon had 10 fires for 17.4 acres. Zion was also involved in numerous wildland and prescribed fire support actions within the Color Country Interagency Fire Management Area and other areas throughout the country. Overall, Color Country had a slow fire season with 267 fires burning approximately 3,035 acres. Of these fires, 24% were human caused. Nationally, it was a very busy season with 56,341 fires burning approximately 9,801,692 acres.

The Utah Parks Group fire and fuels staff conducted seven fuel treatment and mechanical thinning projects for a total of 213 acres treated in Zion NP. They also conducted fuel treatments projects in our cluster parks and other area NPS units.

Utah Parks Group Fire Operation Program staffed two wildland engines in Zion NP (one T6 and one T4) and staffed one T6 engine in Bryce Canyon. These firefighters responded to 94 incidents, including wildfire and SARs. They also had numerous out of state fire support assignments, including supporting GLAC with a Type 6 engine for eight weeks of severity. The operations staff treated 213 acres in fuels treatments and performed seven aviation incidents/projects. Only one minor injury was reported out of a very busy fire season.

The three-person Zion Fire Effects Crew (with some assistance from volunteers) completed all of their FMH plots at ZION and BRCA. During the summer, they lost their Lead Fire Effects Monitor to a new position. Zion is currently weighing options to efficiently perform both fuels and monitoring duties. They also helped support the engine module on numerous wildfires and prescribed fires.

Zion's Fire Communication Education Specialist made thousands of contacts with the public, park staff, and elected officials relating to NPS wildfire and planned fire projects. Numerous contacts were also made through indirect methods such as websites, posters, news releases and other publications. The position continues to support all of the NPS units in both Utah and Colorado and also works closely with interagency partners on fire prevention, education and communication related issues.

The authorized funding in fiscal year 2015 was approximately \$1.9 million dollars. All fire related fiscal and administrative duties are accomplished by the Fire Program Management Assistant (FPMA) with the assistance of the Fire Clerk. The FPMA also provides expertise in Incident Business Management to Zion National Park as well as eight other parks in the Utah Parks Group. Fiscal management was complicated again this year by having no congressional budget authorization, continuing resolution, fiscal cliffs and further complicated by having FBMS.

Fire staff based at Zion directed the fire management programs of the Utah Parks Group (BRCA, PISP, TICA, GOSP, CEBR, GLCA, RABR and CARE). Zion supported all fire management activities in these parks.

Zion continues its tradition of interagency cooperation as a member of the Color Country Interagency Fire Management Area whose response zone covers 14.7 million acres of federal, state and private lands in Southwest Utah and Northwest Arizona. This group helps to promote safe and effective fire management in Color Country through interagency cooperation and coordination. Zion as well performs in this manner for the Central Utah Interagency Fire Management Area and the Northern Utah Interagency Fire management Area. Zion representatives served on the Operations, Fuels and Information/Education Committees and the FMO chaired the Color Country FMO Group this year. No National Incident Management Teams were brought in to manage fires.

### **Personnel Changes in 2015 (permanent)**

Katie Walsh, Lead Fire Effects Monitor at Zion, accepted a job with Ely District BLM in Nevada.

Ray Ucha, Zion Helitack Unit Aviation Manager, accepted a job with California Desert District BLM in California.

Greg Bartin, Zion Engine Module Lead, accepted the job as Assistant Fire Management Officer for Zion.



## Fire Effects Monitoring Program 2015

The Utah Parks Group Fire Effects Program served Zion and Bryce Canyon National Parks during the 2015 season. Golden Spike NHS has been monitored in the past but due to the lack of an active prescribed burn program at that site, the assisting fire ecologist and the crew lead decided in 2014 to discontinue sampling the FMH sagebrush plots there. During the 2015 field season the crew completed all scheduled FMH and rapid assessment plots as well as photopoints.

Accomplishments include: 13 FMH and 9 photopoints in Zion; 3 FMH, 15 rapid assessment, and 3 photopoints in Bryce. The crew spent 5 days camped in Bryce to complete the fieldwork.



This year the field staff consisted of the returning fire effects lead, Katie Walsh; the returning assistant lead fire effects monitor, Liz Dodson; and one returning crewmember, Brian Howard. Fire clerk, Stephanie Trimmer, and several other park employees were trained and utilized in monitoring activities. Despite adequate funding and time this pre-season, only one additional crewmember was able to be hired, starting the season off understaffed. Mid-summer Katie accepted a job for the BLM in Ely, NV and left the lead position in early July. Brian Howard ended his season early to attend graduate school in mid-August. Liz needed to rely on the help of Stephanie, engine crewmembers, and volunteers from other divisions to complete plot work. The crew also supported initial attack, fuel moisture sampling, RAWS station maintenance, fuels reduction projects and engine staffing throughout the season.

The crew assisted with the Canyon Grass Rx, located in Zion along the Pa'rus trail on April 29. 10 acres were ignited with the intent to reduce exotics, especially cheatgrass, and create a fuel break in the main canyon. A monitoring report was created which summarized the fire activity. In the weeks before, 2 plots with 1 vegetation transect each and 2 photopoints were installed and read to help management detect changes in abundance of exotics. A post read was done after the burn. 2 plots and 4 photopoints were also installed and pre-read done in the Canyon Grass – North Lodge unit across from the Zion Lodge, but the burn didn't happen.

All crewmembers were able to participate in at least one fire assignment and worked on a wide range of fire skills. Katie attended GISS class and was able to IC a type 5 fire in the local Color Country area. Brian attended L280 Followership to Leadership in Bryce Canyon NP as well as S290 Introduction to Fire Behavior and initiated a FEMO taskbook. He went out with a Color Country Interagency Type 2 IA handcrew on a 14 day assignment in California, and assisted Glacier NP with severity on a Type 6 engine assignment for 14 days. Brian also assisted with engine staffing, fuel reduction projects, fuel moisture monitoring, and initial attack. Liz attended L380 Fireline Leadership class in Elko, NV in the spring and S215 Wildland Urban Interface class locally. She worked as a helicopter crewmember on a 14 day training assignment in Grand Canyon NP, and went out as a FEMO and was the trainer for another local employee on a managed fire in Color Country for 14 days. Liz was able to go out as a READ on a wildfire in Washington for 21 days. Liz also assisted with engine staffing, fuels reduction projects and fuel moisture sampling.

After a very dry and warm winter, Zion received copious amounts of rain in May which only brought the averages back to normal. Zion did not have any days in severity and was never in fire restrictions for the 2015 season. During the monsoon season there were 8 lightning starts in the park, 3 occurred in very remote places on mesa tops and were allowed to run their natural course. One, the Cathedral Fire, spread through the entire mesa top reaching about 50 acres before it ran out of fuel. The others were suppressed or went out.

Windy Bunn, Grand Canyon Fire Ecologist, continued to support the Utah Parks Group and is working on a summary report on the current status of the program. She worked with Katie and Liz to fix database errors and inconsistencies that occurred over the past 4 years in the absence of a fire ecologist. In late August Windy visited Zion to work with Liz on cleaning up the database and to understand program operations better.

## Fire Effects Monitoring Program 2015 continued

| Park         | Monitoring Unit  | Plot Type             | Pre-burn  | Immed. Post | Post-burn | Annual Total | Total Plots |
|--------------|------------------|-----------------------|-----------|-------------|-----------|--------------|-------------|
| Zion         | Ponderosa Pine   | FMH Forest Plot       | -         | -           | 3         | 3            | 19          |
| Zion         | Sagebrush        | FMH Brush Plot        | -         | -           | 8         | 8            | 20          |
| Zion         | Gambel Oak       | FMH Forest Plot       | -         | -           | 1         | 1            | 12          |
| Zion         | Juniper Woodland | FMH Forest Plot       | -         | -           | 2         | 2            | 8           |
| Zion         | Aspen            | FMH Forest Plot       | -         | -           | -         | -            | 10          |
| Zion         | White Fir        | FMH Forest Plot       | -         | -           | -         | -            | 8           |
| Zion         | East Entrance Rx | Photo Point           | -         | -           | 4         | 4            | 4           |
| Zion         | Canyon Grass Rx  | Photo Point           | 6         | 2           | -         | 8            | 6           |
| Zion         | Canyon Grass Rx  | Exotics Plot          | 4         | 2           | -         | 6            | 4           |
|              |                  |                       |           |             |           |              |             |
| Bryce        | White Fir        | FMH Forest Plot       | -         | -           | 3         | 3            | 17          |
| Bryce        | Ponderosa Pine   | FMH Forest Plot       | -         | -           | -         | -            | 23          |
| Bryce        | Black Sage       | FMH Brush Plot        | -         | -           | -         | -            | 7           |
| Bryce        | Dave Hollow Rx   | Tree Density          | -         | -           | 15        | 15           | 15          |
| Bryce        | Dave Hollow Rx   | Photo Points          | -         | -           | 3         | 3            | 3           |
|              |                  |                       |           |             |           |              |             |
| <b>Total</b> |                  | <b>All Plot Types</b> | <b>10</b> | <b>4</b>    | <b>39</b> | <b>53</b>    | <b>156</b>  |





## Fire Information and Education 2015

The Fire Information and Education program at Zion is coordinated by the Fire Education/Communication Specialist (FECS) whose primary responsibility is to establish and coordinate internal and external fire information, education and prevention programs in order to present an integrated interdisciplinary fire program within Zion, the Utah Parks Group and the National Park Service (NPS) as a whole.

2015 was another busy year for the Information and Education portion of Zion's Fire Management Program. The park experienced nine wildland fires. The FECS served as Public Information Officer (PIO), either directly or indirectly, on all these incidents as needed.



The FECS produced numerous fire-related brochures, posters, handouts and other information for Zion, the NPS and Color Country. The messages were delivered in an assortment of mediums, both directly and indirectly, and by a wide variety of individuals, including the FECS, fire staff, park interpreters, resource management staff, and PIOs assisting the FECS. The FECS was also involved in the training of seasonal park employees and concession staffs in regards to fire management.

The FECS continued development and updating of the wildland fire webpage (<http://www.nps.gov/zion/learn/nature/fire-management-homepage.htm>), which is hosted by Zion's main webpage. The site contains a wealth of information regarding wildland fire management in Zion and the NPS.

The FECS is a qualified PIO1 and is currently serving in that function on a Type I Incident Management Team that manages wildland fires throughout the country. The FECS also served as a PIO on wildland and prescribed fires in the Color Country area.

The FECS serves as the NPS representative for the Color Country Interagency Information and Education Committee, an active group that produces and disseminates wildland fire-related information and educational materials/programs.

The FECS also represents the NPS on three other interagency committees including, the Great Basin Fire Education and Prevention Committee, the Utah Fire Communications Committee and the Rocky Mountain Information/Education Committee. Travel caps and budget did constrain some participation.

As well as the FECS duties in the Fire Management Program, the position also assists with the Public Information Program in the park. This involves the production of press releases, media interviews and being a member of various park committees and work groups.

## Zion Engine Module 2015

The 2015 Fire Season saw some significant changes for the Zion Engine Program. Numerous developmental details were completed and capacity was increased with changes in apparatus. By the end of the season Zion had excessed a Type 6 engine (E-611) and the Type 2 Support Water Tender (T-321) and accepted a new Type 4 engine (E-403). The equipment changes require modifications in staffing to account for shifts in responsibilities and requirements for effective operation within the new staffing configuration.



E-403 arrived from KME in February of 2015. The pump package on E-612 was upgraded to a Darley pump head through a contract with Larsen Fire Apparatus. As a result of a leaking Waterous mechanical seal E-611 was parked for the season and the E-403 and E-612 were staffed to the best of our ability. Staffing configurations of two Engine Module Leaders (STF) and two additional ENGB (one temp, one detailed) helped Zion negotiate the challenge of having enough qualified ENGB/IC positions to run both engines. The requirement for a CDL to drive the heavy engine was one of the biggest hurdles to effective operations in 2015. Only three staff members possessed CDLs, and these were ENGB qualified employees; thus tasking the module leadership to both maintain “big picture” and operate all aspects of the apparatus simultaneously.

Moving forward recommendations for staffing the engine with two Permanent employees each day (Operator w/CDL + ENGB/IC) would provide the best staffing configuration available with our current approved organization. This will also help meet Red Book standards. To effect Seven day coverage conversion of the Assistant Position to Permanent STF and Seasonal Senior Firefighter to Permanent STF will be needed to staff E-403 on a seven day rotation. Per the target organization, a December departure of one of the Engine Module Leaders to the AFMO position causes the seven day engine model to be enacted and the assistant Module Leader will be filled as a permanent STF.

## **Zion Engine Module 2015 cont..**

With the Zion Helitack program shuttered for 2015 engine module personnel absorbed a great deal of aviation planning and operations responsibilities. As the AFMO position and key permanent fuels and ecology position remained vacant Engine Module personnel jumped in to perform all fuels planning and implementation duties as well. The Engine Module staff supported seven aviation incidents or operations and treated 200 acres through mechanical and RX implementation.

Staff accomplished numerous developmental details in 2015. Module Leader Bryan Bird attended PFTC in January and gained valuable RX fire and fuels management experience as an RXB2 trainee. Greg Bartin detailed into the vacant AFMO position from October of 2014 to January of 2015. Long time Assistant Module Leader Trevor Williams returned on a 120 day detail from his term position at Buffalo River NRA, providing much needed assistance and leadership as both ENGB and IC. Patrick Johnson stepped up as ad hoc Assistant on E-612, and with his CDL provided outstanding support in staffing E-612 and E-403 as both operator and ENGB.

A mix of returning and new seasonal employees provided good consistency and new motivation to the program. Ted Childers, after a season on hiatus returned for a fifth season. Colin Jenkins returned to Zion for a second season with the program. The staff picked up Ben Potash from Lone Peak IHC, Erin Christenson from Larimer County, CO Fire, Kevin Bauer from the State of Utah (Dromedary Peak Fuels) and hired Ethan Newman for his first season in wildland fire.

### **By the end of the season our staff of ten had:**

- Spent over 230 shifts in support of severity efforts in Glacier National Park
- Staffed two Color Country Type 2 IA crew roles
- Filled two positions on Color Country Type 3 IMTs
- Detailed on two roles with Cedar City IHC
- Performed five two week details to Grand Canyon Helitack
- Assisted the Kaibab NF on two management fires
- Suppressed or managed seven fires in Zion for 60 acres
- Provided aviation planning, support and staffing for four Search and Rescue Incidents and three helicopter supported park projects
- Filled critical holes in staffing with Module Leaders supporting in Duty Officer and Fuels planning roles
- Assisted on nine technical and non-technical SAR Incidents including the Keyhole Flood
- Performed over 200 acres of fuels treatments through Mechanical, CHEM and RX applications



## Zion Engine Module 2015 cont..

### 2015 Accomplishments

- Zero lost time injuries/incidents this season.
- Over 20,000 miles driven with zero accidents or near misses.
- Numerous safety trainings completed, including Blood Borne Pathogen, HAZwopper, Defensive Driving training.
- Over 100 person days worked running chainsaws with zero accidents or injuries

Training- Conducted formal and informal training for park staff and cooperating agencies including the following:

- RT-130 -over 75 NPS participants
- S-130/190/133 – 90 interagency participants
- S-212 – 5 NPS participants

Career Development- Zion provided numerous experiential opportunities for its employees this summer. We hosted a National Detailer in 2015 as Trevor Williams returned from Buffalo River as a detailed assistant on E-403. Four employees went to Grand Canyon Helicopter Training Academy, Bird, Jenkins and Potash finished HECM taskbooks. Bartin detailed off the Great Basin trainee list to Martin's Type 2 Team and finished a DIVS taskbook. Williams was able to complete ICT4 on two complex assignments in Zion. Erin Christenson and Ethan Newman were both signed off as Faller A/FAL3.



## 2015 Zion Fire Business Management

The Zion Fire Program Management Assistant provides expertise in Incident Business Management to Zion National Park and the Utah Parks Group. These additional National Park Service areas include Pipe Spring, Cedar Breaks, Timpanogos Cave and Rainbow Bridge National Monuments, Golden Spike National Historic Site, Bryce Canyon and Capitol Reef National Parks and Glen Canyon National Recreation Area.

Fire Management at Zion National Park and the Utah Parks Group is a highly complex program incorporating a full range of management objectives. The Zion fire staff includes a full time Fire Management Officer, Assistant Fire Management Officer (vacant as of 07/13/13, however, one temporary promotion covered the position temporarily in 2015), Fire Ecologist (vacant as of 8/11/12), Fire I information and Education Specialist, Helicopter Manager (vacant as of 5/31/15) and Fire Program Manager. Zion is funded for a Fire Program Clerk which is a career seasonal position. Zion typically hosts a seven person Wildland Fire Module but all positions are vacant due to lack of funds. Zion hosts a Fire Effects Crew with a career seasonal lead (vacant as of 7/12/15) and three temporary fire monitors. Zion historically hosts an 8 person Helicopter Module for the 120 day exclusive use helicopter contract. This year, however, Zion was not funded for the 7 vacant positions; 3 permanent and 4 seasonals, so there was no ship and no program. With funding for a five person seasonal fuels crew and three seasonal engine crewmembers, along with the two career seasonal Engine Foremen, the park was able to staff a Type 3 and/or the Type 6 Wildland Fire Engine for most of the season

The Fire Program Management Assistant oversees all office and administrative functions in the Fire and Aviation Branch ensuring appropriate guidelines are followed as they pertain to budget, procurement, fleet management, personnel, payroll, travel, medical standards, drug testing and correspondence. All fire related fiscal and administrative duties are accomplished by the Fire Program Management Assistant and the Fire Program Clerk in support of the fire management staff.

In 2015, duties included the timely and accurate preparation of Fire and Aviation branch time and attendance reports for 21 employees through QuickTime. Time was also prepared and submitted to the National Interagency Fire Center's Casual Payment Center for emergency hires (ADs) after each callout. Nine payments were made to three AD employees. The fire year resulted in the preparation and processing of 125 travel authorizations/vouchers related to meetings, training, emergency and non-emergency operations for branch and AD employees.

In 2015, eleven accounts were set up for suppression activities within Zion National Park boundary; UT-ZIP: East Zion Smoke Check, Meridian Towers, Phantom, JP, Cathedral, Blacks Canyon, Kanarra, Spud, KT Zion, ZIP FA 0002 and Little Creek.

Twelve accounts were set up for two of the Utah Parks Group parks for suppression activities. AZ-GLP: Warm Creek Bay 01, Padre Canyon, Bullfrog Bay, Lees Ferry, Ferry Ramp, Good Hope Bay, Clay Hill, Friendship, Bullfrog North and Tapestry. UT-BRP: Agua and Stump

Two Step-Up accounts were set up for Zion between the dates of June 05 and July 24 during hot, dry periods and when red flag conditions warranted the need for additional staffing. Severity funding was not requested or authorized. Other accounts were created as base and project accounts. The authorized funding in fiscal year 2015 was \$1,011,734.00

## 2015 Zion Fire Business Management cont...

### FY 2015 AUTHORIZED FUNDING AMOUNTS

|  |           |
|--|-----------|
| Wildland Fire Preparedness             |           |
| P11 Readiness                          | \$552,945 |
|  |           |
| Hazardous Fuels Reduction – WUI        |           |
| W11 Fuels Management                   | \$235,589 |
| W12 Fuels Projects GOSP Mowing         | \$ 3,500  |
| W14 Fire Effects Monitoring            | \$ 56,100 |
| W32 Fuels Project Staffing             | \$ 78,700 |
| Lodge RX Prep (Add-On)                 | \$ 12,000 |
| Lodge Unit RX Prep Phase 2             | \$ 16,600 |
| Rainbow Point RX Prep                  | \$ 19,000 |
| South CG FY15 Maint. RX (Add-On)       | \$ 200    |
| Zion Canyon Grass RX                   | \$ 300    |
| Zion Canyon Grass RX Chemical          | \$ 5,000  |
| Zion FY15 Fall/Winter Project Staffing | \$ 31,800 |
|  |           |
| Fire Protection Assistance             |           |
| F13 Expenditure Account (Operations)   | \$ 0      |
|  |           |
| Severity                               |           |
| E14 Program                            | \$ 0      |



# Fuels Treatment Projects 2015

## Zion NP

| Project              | Treatment Type | Acres            |
|----------------------|----------------|------------------|
| South Campground RX  | Broadcast Burn | 25               |
| Zion Lodge WUI       | Mechanical     | 27               |
| Upper Kolob WUI      | Mechanical     | 33               |
| East Entrance        | Mechanical     | 11               |
| EOC Mechanical       | Mechanical     | 2                |
| East Mesa Mechanical | Mechanical     | 15               |
| Zion Canyon WUI      | Chemical       | 100              |
| <b>Total</b>         |                | <b>213 acres</b> |

**Bryce Canyon NP:** 12 fuel reduction projects for 336 acres

**Golden Spike NM:** 600 acres treated (Mowing Cheatgrass)



**Burning debris pile in Zion Canyon**

# Wildland Fires – 2015

## Zion NP

| Wildland Fire          | Date | Acres             | Cause     | Action Taken    |
|------------------------|------|-------------------|-----------|-----------------|
| Meridian Tower         | 6/29 | .5                | Lightning | Suppression     |
| Phantom                | 6/29 | .5                | Lightning | Suppression     |
| JP                     | 7/9  | .1                | Lightning | Suppression     |
| Cathedral              | 7/9  | 51                | Lightning | Confine/Contain |
| Blacks Canyon          | 7/18 | .1                | Lightning | Suppression     |
| Kanarra                | 7/18 | .1                | Lightning | Suppression     |
| Spud                   | 8/8  | .1                | Lightning | Suppression     |
| KT Zion                | 8/22 | .4                | Human     | Suppression     |
| Little Creek           | 9/13 | 3.5               | Lightning | Suppression     |
| <b>Total:(9 Fires)</b> |      | <b>56.2 acres</b> |           |                 |

**Bryce Canyon NP:** 2 fires for .2 acres (both lightning caused)

**Glen Canyon NRA:** 10 fires for 17.4 acres (All human caused)



**Cathedral Fire**



**Locust Fire - North Kaibab NF**

## **2015 Permanent and Seasonal Staff**

### **Permanent Staff**

Fire Management Officer - Taiga Rohrer  
Fire Program Management Assistant – Kristine Evenson  
Fire Program Clerk - Stephanie Trimmer  
Lead Fire Effects Monitor – Katie Walsh  
David Brothwell - Fire Management Specialist (BRCA)  
Fire Communication/Education Specialist – David Eaker  
Engine Supervisor – Greg Martin  
Engine Supervisor - Bryan Bird

### **Seasonal Staff (ZION)**

Fire Effects Crew - Elizabeth Dodson  
Fire Effects Crew - Brian Howard

Engine Crew - Trevor Williams  
Engine Crew - Patrick Johnson  
Engine Crew - Kevin Bauer  
Engine Crew - Ted Childers  
Engine Crew - Erin Christenson  
Engine Crew - Colin Jenkins  
Engine Crew - Ethan Newman  
Engine Crew - Ben Potash

### **Seasonal Staff (BRCA)**

Casey Creamer  
Alex Williams