Zion
Fire & Aviation Management

National Park Service
U.S. Department of the Interior

Annual Report 2014

2014 Season Overview

The 2014 season was another active one for Zion National Park's Fire and Aviation Management Program and its staff of 22 people (both seasonal and permanent).

Zion had 5 wildland fires in 2014 that burned .7 acres within the park. Three of the these fires were human caused and all the others lightning caused. The other parks in the Utah Park Group had 18 fires, the majority of them being less than an acre. 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. Color Country overall had a relatively slow season with 269 fires burning approximately 4,282 acres with 33% of these being human caused. Mid summer rains caused a reduction in fire danger and reduced ignitions. Nationally it was also a below average season with 45,468 fires burning approximately 3,402,075 acres through mid-November.

The ZION and BRCA fire and fuels staff conducted numerous fuel treatment and mechanical thinning projects for a total of 437 acres treated in the parks They also assisted with fuel treatments projects in other area NPS units.

Zion continued to staff its two Type 6 wildland engines modules and was also able to support an integrated five person fuels crew. These firefighters responded to 35 incidents, including wildfire and SARs. They also had some out of state fire support assignments. The two engines combined for 13,275 miles driven with no accidents.

The four-person Zion Fire Effects Crew (with some assistance from volunteers) completed all 36 of their FMH plots at ZION and BRCA. They also helped support the engine module on numerous wildfires and prescribed fires and continued their support of the development of a working Zion Herbarium.

The Zion Helitack Module lost three of their four leadership positions at the beginning of the fire season, which made staffing of the helicopter a challenge. They initial attacked 26 fires, it being a relatively slow season. They recorded 121 hours flown. They were also involved in five short haul Search and Rescue operations in the local area and supported numerous fires and staffed incident helibases out of the area. Notably, unless long term direction changes by the national office are made, this was the last season for the Zion Helitack Program.

The 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.

The authorized funding in fiscal year 2014 was approximately $1.9 million dollars. All fire related fiscal and administrative duties are accomplished by the Fire Program Management Assistant (FPMA). 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 restrictions were once again instituted in the summer of 2014 for Zion (June18 - August 5) and the Utah Parks Group, the Color Country Interagency Fire Management Area and most of Utah.

Zion assisted with 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. No National Incident Management Teams were brought in to manage fires.

Personnel Changes in 2014 (permanent)
No new permanent hires in 2014

Ben Suerig and Ben Thayer both left their positions as Helitack Crewmembers to take positions with the National Forest Service

Chad Runyan left his position as Assistant Helitack Manager to take a position with the BLM in Montana

Fire Effects Monitoring Program 2014

The Southern Utah Parks Group Fire Effects Program served Zion and Bryce Canyon National Parks during the 2014 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 to discontinue sampling the FMH sagebrush plots there. During the 2014 field season, the crew completed all scheduled FMH plots: 30 at Zion NP and 6 at Bryce Canyon NP. They also installed and read 10 rapid assessment plots in a new fuel reduction project area at Rainbow Point in Bryce Canyon NP. The crew spent 7 days camped at Bryce to complete 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 two crewmembers, Meredith Talbert and Brian Howard. Fire payroll assistant, Stephanie Trimmer, and several other park employees were trained on monitoring techniques. Liz Dodson did an excellent job at leading the crew and coordinating with fire staffduring the bulk of the fire season while Katie Walsh was on detail at Grand Teton NP. As the assistant lead, Liz took on several above and beyond duties and activities including coordinating with other Zion fire crews and rotating duty officers.

All crewmembers were able to participate in at least one detail assignment and worked on a wide range of wildland fire skills. Crewmembers Meredith and Brian attended fire school and received their red card in May. Brian attended S212 saw training at Bryce Canyon in June. Liz attended local resource advisor training and was able to add READ trainee to her red card. Unfortunately, she was unable to get out on a READ assignment. Liz was also able to attend the BLM sponsored training titled “Measuring and Monitoring Plant Populations” in Billings, MT. This week long course was a great introduction for Liz into the full process of setting up and completing a monitoring project. From June until August, Katie did a 120 day detail in Grand Teton NP and worked with the Teton Interagency Fire Ecologist, Diane Abendroth. The fire effects program was also able to continue supporting plant identification training with assistance from the Zion Natural History Association and the Zion vegetation program. All crew members participated in 20 hours of plant identification and herbarium skills training.

Fire Effects Monitoring Program 2014 continued

Despite the unusually dry winter and early spring in Zion National Park and the surrounding Color Country area, the number of local wildfires was low this year with just 6 wildfire starts. In June the 1000 hour fuels were monitored at 2% and all local units were in severity by July. Zion was in severity for several weeks, but received an abundance of monsoonal moisture in August and September. Although it was a slow fire season in Color Country all crew members acquired some fire experience. Liz went out on a Color Country Interagency Type 2 crew as FFT1 trainee. Brian and Meredith went out on a local NPS Type 2 hand crew called "Zion Regulars" as crew members. Both benefited from learning about extended fire assignments while working with fellow Zion fire employees. The fire effects crew also assisted the Zion wildland fire engines with several small fires in Zion NP and the local Color Country Interagency Area.

The Southern Utah Parks Group entered into a one-year agreement this year with Grand Canyon National Park (GRCA) to obtain professional level fire ecology support from the GRCA Fire Ecologist, Windy Bunn, during the transitional period to the future fire management organization. The agreement is designed to be evaluated on a yearly basis until a permanent solution to the vacant Southern Utah Parks Group Fire Ecologist position is finalized.

Direction

Budget uncertainties and lack of program support make planning for future monitoring difficult. However, the 2014 Utah Parks Group fire program review and the upcoming Fire Management Plan Environmental Assessment provide opportunities to identify focus areas for future monitoring. Monitoring needs and expectations, as well as resources (crew size, Fire Ecologist support, etc.) required to accomplish monitoring needs should be evaluated in the coming year. The Fire Ecologist support agreement with GRCA should be renewed for 2015 to ensure support for resolving the data quality issues that were identified this year and to revitalize efforts to provide timely and relevant data analysis.

Fire Effects Monitoring Program 2014 continued

Park	Monitoring Unit	Plot Type	Pre-burn	Immed. Post	Post-burn	Annual Total	Total Plots
Zion	Ponderosa Pine	FMH Forest Plot	-	-	6	6	19
Zion	Sagebrush	FMH Brush Plot	-	-	5	5	20
Zion	Gambel Oak	FMH Forest Plot	-	-	4	4	12
Zion	Juniper Woodland	FMH Forest Plot	-	-	3	3	8
Zion	Aspen	FMH Forest Plot	-	-	9	9	10
Zion	White Fir	FMH Forest Plot	-	-	3	3	10
Zion	Lodge Thinning	Photo Point	5	5	-	5	5
Bryce	White Fir	FMH Forest Plot	-	-	-	-	18
Bryce	Ponderosa Pine	FMH Forest Plot	-	-	6	6	23
Bryce	Black Sage	FMH Brush Plot	-	-	-	-	7
Bryce	Dave Hollow Rx	Tree Density	-	-	-	-	15
Bryce	Dave Hollow Rx	Photo Points	-	-	-	-	3
Bryce	Lodge Thin	Photo Points	-	-	7	7	7
Bryce	Rainbow Thin	Tree Density	10	-	-	-	10
Total		**All Plot Types**	**15**	**5**	**48**	**68**	**167**

Fire Effects Crew 2014 Accomplishments/Focus Areas

Category	Percent Time	Notes
FMH plots	40	30 FMH plots at Zion, 6 FMH plots at BRCA
WUI plots	0	
CBI plots	0	
Other plot work	5	Install and read 10 rapid assessment plots, 7 photo points at BRCA
Wildfire	15	10 shifts assisting engine with severity coverage. 7 shifts local IA Crewmembers- 1 two week assignment each on Color Country crew
Rx projects	<5	Assist Kaibab NF with RX
Fuels projects	5	Fuel moisture sample collection.
Out-of-park travel	<2	2 trips Bryce Canyon, 2 trips Kaibab RX
Data entry	15	Completed data entry for FMH
Supervision/Admin	5	Lead hired and supervised seasonal employees, time and travel
Training	10	Attended refresher, botany trainings, fire school, chainsaw training

Fire Information and Education 2014

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.

2014 was another busy year for the Information and Education portion of Zion's Fire Management Program. The park experienced six 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/naturescience/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 Helitack Module 2014

The 2014 fire season presented many demanding situations and opportunities for Zion Helitack. Key positions were vacated except the foreman, leaving vacancies that were key to the operation of the crew. This also forced the creation of an untested crew. To face these challenges Zion took detailers from Alaska, Nevada, Colorado and Utah . Zion Helitack was also assisted by many other people, agencies and national park units. This was a very tough year and without the help of everyone this could have been a year of disastrous consequences instead of the productive season that it turned out to be.

Zion Helitack collaborated on a total of 26 fires, taking on the roles and key positions of IC5, Helibase Manager, Helicopter Crewmember and Short Haul ready for wildfires. Helicopter 7RL executed one Short Haul rescue in Zion National Park. The helicopter crew was dispatched to ELY BLM, Nevada district to Medevac a victim in need of urgent medical assistance. This was accomplished within one hour of the original time of the dispatch call. Flight time for the year was 121hrs. Zion Helitack also went off district twice to Idaho and California.

Zion Helitack helped train and sign off a total of five Helicopter crewmembers and two IC5s. This being a slow fire season where opportunities were not as common as other years, signing these trainees off was a great accomplishment. Other training that took place during the season included review of fire tragedies and numerous fire related classes. All members of Zion Helitack got the opportunity to instruct a session of training. This was done with the intention to give the crew practical experience teaching and help inspire future instructors.

Zion Engine Module 2014

The 2014 Fire Season presented new and unique challenges for our engine staff, and saw impressive fuels treatment production rates. The fire season was unusually slow in Zion National Park with only 6 wildfire starts, none growing larger than .25 acres. The fire occurrence amount was in stark contrast to what was expected due to an unusually dry winter and early spring. In June of 2014 the 1000 hr fuels were monitored at 2% and all local units were in severity by July. Zion spent a month in severity due to the abnormally dry conditions.

2014 saw Zion hire a "fuels crew" which had not been done in two years. The increased number of personnel provided the staff with increased flexibility and work production power. With the 2016 FTO looming large on the horizon the decision was made to officially staff one engine and the project funded fuels crew, until production targets had been realized. Once these targets were met, the fuels crew was to assimilate into two engine staffing, while the focus would remain on producing treated acres while not assigned to incidents. This strategy provided the National Park Service with the work output of ten employees on fuels treatments at the cost of merely five.

While the shift to two engine staffing presented a few challenges, the production rates were much higher than in years past. Both preparedness and fuels funded crewmembers worked side by side, with no distinction made between. The assimilation of crews provided an excellent level of full staff cohesion and sense of purpose in meeting target acres. The only aspect that suffered would be "OJT" training on engine operations. This was due in part to a slow initial attack fire season and also by an inflated sense of purpose on producing acres treated mechanically. An accounting of fuels treated and projects performed are documented in a section within this report. The Zion staff provided for 55 acres treated mechanically. . All in all it was a successful season in terms of staff cohesion, safety and meeting stated goals.

Along with fuels reduction the staff utilized the provided one hour a day to develop and maintain a high level of physical fitness. The PT program was varied and led to ten individuals collectively scoring an average of 237 in the NPS Fire Fitness Challenge. A solid PT program continues to be both a benefit to our firefighter safety record and a recruitment tool in hiring each spring.

All overhead returned in 2014, with Trevor Williams assuming the role of Fuels Crew Leader at the GS-06 rate. Patrick Johnson served as the ad hoc Assistant Engine Foreman on E-612, which was staffed by preparedness funded employees and supervised by Module Leader Bryan Bird. Module Leader Greg Bartin supervised Trevor Williams and the fuels funded employees staffed E-611 during severity and initial attack season, which was short lived.

Zion Engine Module 2014 cont..

Zion hosted a National detailer for a month during Severity. Chris Nothstine from the Natchez Trace Parkway joined Zion as a qualified ICT5/ ENGB. Chris detailed in as a Senior Firefighter to enhance his leadership skills. He applied for and received NIFC detail dollars to fund his experience and provided Zion with a knowledgeable and experienced employee throughout July.

Mechanical Issues with the aging engines presented numerous issues, which consumed much staff time in the early season. The replacement mechanical seals continue to fail at the rate of, on average, 15 hours of use. The Waterous Company continues to refuse to admit that there are problems with their replacement seals, even after eight seals have failed and numerous other Department of the Interior units have reported identical problems.

The arrival of a new Type 4 engine scheduled for December 2014 will be welcomed. This will present an opportunity to increase our work output capability and provide enhanced experience to our staff.

2014 Accomplishments

Safety

•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, EMT refresher.

•Nearly 500 person days worked running chainsaws with zero accidents or injuries

Zion Engine Module 2014 cont..

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

•RT-131 -over 80 NPS participants
•S-130/190/133 – 50 interagency participants
•S-131 – 4 NPS participants
•S-212 – 10 NPS participants
•S-230 – 25 interagency participants
•S-231 – 25 interagency participants
•S-234 - 24 interagency participants

Career Development- Zion provided numerous experiential opportunities for its employees this summer. Bryan Bird took a two week detail to Moki Helitack, and all employees spent at least two weeks on Interagency Type 2 IA handcrews. Greg Bartin detailed into the AFMO position for four months during the winter of 2014/15. In total 42 taskbook experience records were documented, several in house leadership opportunities were created, and 8 PTBs were completed. Two week details with outside resources were harder to procure for employees for a number of reasons in 2014 and we hope to improve upon this next season.

Fires Staffed -26 wildfires and 6 Prescribed fires were staffed by Zion Engine/Fuels employees in 2014.

Fuels and Prescribed Fire - 55 acres mechanically treated with no lost time injuries.

2014 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 Capital 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, 3 detailers and one temporary promotion covered the position in 2014), Fire Ecologist (vacant as of 8/11/12), Fire Information and Education Specialist, Helicopter Manager 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 and three temporary fire monitors. Zion also hosts an 8 person Helicopter Module for the120 day exclusive use helicopter contract. At one point during the contract period there were 3 vacant permanent positions on helitack. One position was filled by a seasonal crewmember and one by detailers to get through the remainder of the contract. With funding for a five seasonal fuels crew and two seasonal engine crewmembers, along with the two career seasonal Engine Foremen, the park was able to staff two Type 6 Wildland Fire Engines.

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 2014, duties included the timely and accurate preparation of Fire and Aviation branch time and attendance reports for 29 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. Seven payments were made to three AD employees. The fire year resulted in the preparation and processing of 120 travel authorizations/ vouchers related to meetings, training, emergency and non-emergency operations for branch and AD employees.

In 2014, six accounts were set up for suppression activities within Zion National Park boundary; UT-ZIP: South Entrance, Big Bend, Cliff, North Fork, Pits and ZIP-FA-0001. Seventeen accounts were set up for three of the Utah Parks Group parks for suppression activities or false alarms; AZ-GLP: Halls Creek, Clayhill, Bullfrog Bay, Gunsight Canyon, Warm Creek Bay, Forgotten Canyon, Halls Creek 2, Warm Creek 2, Halls Creek 3, Kane Creek, Halls Creek 4, West Bullfrog Bay, Trailerville, Dungeon Canyon and Childs; UT-BRP: Yovimpa; UT-GSP: Ash Dump. Three Step-Up accounts were set up for Zion between the dates of May 30 and June 30 during hot, dry periods and when red flag conditions warranted the need for additional staffing. In addition, Severity funding was authorized from July 1 through July 30 due to extreme fire weather and fuels conditions throughout the Color Country Interagency Fire Management Zone. Drought conditions were moderate to severe and temperatures were forecasted to be above normal. Other accounts were created as base and project accounts. The authorized funding in fiscal year 2014 was approximately 1.2 million dollars.

2014 Zion Fire Business Management cont...

FY 2014 AUTHORIZED FUNDING AMOUNTS

Wildland Fire Preparedness	
P11 Readiness	$619,747
Hazardous Fuels Reduction – WUI	
W11 Fuels Management	$314,410
W12 Fuels Projects GOSP Mowing	$ 3,500
W14 Fire Effects Monitoring	$ 55,800
W32 Fuels Project Staffing	$ 78,225
Fire Protection Assistance	
F13 Expenditure Account (Operations)	$ 5,000
Severity	
E14 Program	$128,089

Fuels Treatment Projects 2014

Project	Treatment Type	Acres
South Campground Burn	Broadcast Burn	24
Zion Lodge WUI	Mechanical	18
Upper Kolob WUI	Mechanical	32
Parkwide piles	Mechanical	43

Total **117 acres**

Communities Protected

- East Zion - (Focus Area of the Color Country Interagency Fire Management Area)
  - Little Ponderosa Subdivision
  - Zion Estates
- Kolob - (Focus Area of the Color Country Interagency Fire Management Area)
- Zion National Park Infrastructures

Chipping debris at PISP

Upper Kolob WUI Piles

Zion NP Wildland Fires – 2014

Wildland Fire	Date	Acres	Cause	Action Taken
South Entrance	5/20	.1	Human	Suppression
Big Bend	5/31	.1	Human	Suppression
Cliff	7/13	.1	Lightning	Confine/Contain
North Fork	7/15	.3	Lightning	Suppression
Pits	7/25	.1	Lightning	Natural Out

Total (5 Fires) **.7 acres**

Galahad Fire - GRCA

MM28 Fire

2014 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 - Fuel Management Specialist (BRCA)
Fire Communication/Education Specialist – David Eaker
Helitack Manager - Ray Ucha
Engine Supervisor – Greg Bartin
Engine Supervisor - Bryan Bird

Seasonal Staff
Fire Effects Crew - Elizabeth Dodson
Fire Effects Crew - Brian Howard
Fire Effects Crew - Meridith Talbert

Engine Crew - Trevor Williams
Engine Crew - Patrick Johnson
Engine Crew - Adam Spikell
Engine Crew - Jarred Finn

Fuels Crew - Trevor Williams
Fuels Crew - Jesse Hutchinson
Fuels Crew - Colin Jenkins
Fuels Crew - Kevin Metzger
Fuels Crew - Cameron Shaughnessy