

Zion

Fire & Aviation Management

National Park Service
U.S. Department of the Interior



Annual Report 2005



Joint Fire Science Project in Zion Canyon

2005 Season Overview

The 2005 season was another busy one for Zion National Park's Fire and Aviation Management Program and its staff of 33 people (both seasonal and permanent).

Zion was in severity fire funding for much of the season and fire restrictions were once again enacted for the fourth year in a row. Additional staffing was brought in from various agencies including NPS (Grand Teton and Guadalupe Mountains), BLM, and FS to support the local fire severity and ongoing wildland fires.

Zion had 15 wildland fires in 2005 that burned 241 acres. Zion was also involved in initial attack on another 28 wildland fires within its established response zone as well as supporting numerous, large fires with the Color Country Interagency Fire Management Area.

Zion finally completed and received approval for its new Fire Management Plan and associated Environmental Assessment. This plan was an update of the 1993 Fire Management Plan. The new plan will allow for a full range of management actions including fire use fires and a variety of fuels management techniques. It will guide the park's fire program for the next 10-20 years.

Zion also assisted with the fire management programs of its seven cluster parks (BRCA, PISP, TICA, GOSP, CEBR, GLCA, and CARE). Zion supported all fire management activities in these parks including prescribed fire and fire use fire in BRCA, fuel treatment projects at TICA and CEBR and assisted in the production of fire management plans for all the cluster parks.

Zion continues its tradition of interagency cooperation as a member of the Color Country Interagency Fire Management Area. This group helps to promote safe and effective fire management in Color Country through interagency cooperation and coordination. The area also had a record wildland fire season with 465 fires reported and 317,877 acres burned.

Zion received the NPS Intermountain Award for Excellence in a Complex Fire Management Program at the 2005 Intermountain Fire Management Conference in Albuquerque. The award recognized the outstanding fire program at Zion and the varied operations they manage, including fire aviation, prescribed fire, wildland fire use, fire information/education, fire ecology, fuels management, suppression, interagency cooperation, training and support of cluster parks.

On a very tragic note, Zion lost one of their own with the death of Fire Use Module Assistant Lead Steve Smith. Steve, his wife Amber and their infant daughter Opal died in a vehicle accident in March. They will not be forgotten.

2005 Season Highlights

- Zion received the NPS Intermountain Award for Excellence in a Complex Fire Management Program
- Management of 15 wildland fires within the park totaling 241 acres (including one Fire Use Fire, .1 acre)
- Initial attacked another 28 wildland fires within Zion's response zone, outside of the park boundary
- Completion and implementation of revised Fire Management Plan.
- Filling of fire management positions including Fire Ecologist, Engine Boss, Fire Use Module and Helitack Leads and Assistant Leads
- Assistance with the management of Bryce Canyon's first Fire Use Fire
- 108 interagency support actions outside the park
- 14 fuel treatments involving 420 acres in the park
- Continued development of Zion Fire Management webpage (www.nps.gov/Fire/Index.htm)
- Assistance with the production and completion of four Community Fire Plans and assistance with other communities in the planning phase
- Completed 14 Wildland Fire Community Hazard Risk Assessments
- Continued to use local contract crews, where feasible, for fuels treatment projects
- Fire restrictions were in effect for fourth year in a row 6/9 – 10/8
- Received severity funding for additional staffing from mid-June through August
- The Fire Use Module participated in over 120 operational shifts and traveled over 14,000 miles
- Zion Fire management was the host agency for the annual Color Country Fire School
- Zion Helitack Module flew approximately 213 hours in support of fire operations throughout Color Country
- A record number of acres burned (317,877) in the Color Country Interagency Fire Management Area
- Participated in an interdisciplinary Joint Fire Science Project in Zion Canyon to access what types of management treatments can help to control the spread of exotics.
- Along with resource management, initiated a forest management program to reduce hazardous fuels and provide for the restoration of aspen.



Fuels project completed by VIP group

Fire Effects Monitoring Program

The 2005 season brought many changes to the Southern Utah Fire Effects Monitoring Program based at Zion National Park. As of September 2004, Henry Bastian, the Fire Ecologist, departed from our program to take a position as the LANDFIRE Business Lead with the Department of Interior in Washington, D.C. In June of 2005 the Fire Ecologist position was filled by Kelly Fuhrmann. The Crew Lead, Claire Crow, began graduate studies at the University of Arizona in August 2004. During the 2005 Zion Fire Effects field season she worked on her project researching the effects of fire and thinning treatments on avian populations in pinyon-juniper vegetation at Zion National Park and at Grand Staircase Escalante National Monument. Because the time Claire could spend with the fire effects crew was significantly reduced, the GS-6 Assistant Lead position, filled by Alina Cansler, assumed many of the crew leadership responsibilities during the field season. The personnel and leadership changes provided the Zion Fire Effects Program with new challenges as well as fresh perspectives and new ideas.



Photographing a fire effects plot

There were also changes in the administrative responsibilities of the fire effects program. Due to budget cuts and excessive workloads for the Zion Fire Effects Crew, administration of the Great Basin and Lake Mead fire effects programs were turned over to the Pacific West Region. Relinquishing these programs allowed us to consolidate our efforts and focus on plot work at Zion, Bryce, and Golden Spike units during the 2005 field season. Nonetheless, the plot work in these three parks provided a challenging workload for the three-person seasonal field crew.

We made substantial efforts to fix or mitigate preexisting problems with the protocols in these parks, increase the quality of data collected, and update specific data collection standards. For example, our Standard Operating Procedures for identifying plant specimens were updated. As a result, the field procedures were more organized and the crew was more successful keeping up with plant identification this year than in the past couple years. We standardized our procedures for measuring juniper species this year as well.



Collecting plant specimens

The data for all of the parks we cover was converted during the winter from Fire Monitoring Handbook database format (FMH) to the new Fire Ecology Assessment Tool (FEAT 2.1). We were able to participate in a 3 day FEAT training session in August, taught by Richard Gatewood, Fire Ecologist for Big Bend National Park. This training session allowed us to get a rudimentary grasp of the new software and to prioritize what is needed to fully set up and utilize the program in the future. We will begin using it for data entry in the field during the 2006 field season. Version 2.4 of FEAT was released in November 2005. The update of 2.1 will take place during the winter of 2006.

In addition to program field work accomplishments that included 60 plot reads and 20 photo points in four parks, the fire effects crew and fire ecologist also completed fire operations assignments that included 2 off-park assignments, 1 detail assignment; assisted with 4 research burns, 1 prescribed fire, and 1 wildland fire in Zion.

Fire Information and Education

The Fire Information and Education program at Zion is coordinated by the Fire Information and Education Specialist (FIES) 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 (and the other Utah cluster parks) and the National Park Service (NPS) as a whole.

2005 was another busy year for the Information and Education portion of Zion's Fire Management Program. The park experienced 15 wildland fires that burned 241 acres with the FIES serving as Information Officer (IOF) on all these incidents. The incidents required the production and dissemination of fire information, both internally and externally, and in a variety of mediums, including press releases, media interviews, park memos, posters and webpages.

During the year the FIES updated and modified many of the fire information/education related working plans for Zion including, the Information/Education Plan (Strategy), the Fire Restriction Plan and the Prescribed Fire Information Plan. The FIES also produced numerous fire-related brochures, posters, handouts, site bulletins, and other information for Zion and the NPS. The messages were delivered in an assortment of mediums, both directly and indirectly, and by a wide variety of individuals, including the FIES, fire staff, park interpreters, resource management staff, and IOFs assisting the FIES.

One of the major duties of the FIES is the updating and continued development of the wildland fire webpage (www.nps.gov/zion/Fire/Index.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 FIES is a qualified IOF2 and served in that function on numerous wildland and prescribed fires in the park and in the Color Country area. The FIES also served on a two-week detail to Bandelier National Monument to help them prepare for a planned prescribed fire. All of these fire events, especially the prescribed burns, depended heavily upon the timely and accurate dissemination of information to the public, staff and media.



Fire information table at Earth Day Celebration

The FIES serves as the NPS representative and Chairperson for the Color Country Interagency Information and Education Committee, a very active group that produces and disseminates wildland fire-related information and educational materials/programs. This committee is part of a larger group known as the Color Country Interagency Fire Management Area that coordinates fire management activities throughout Southwestern Utah and northwestern Arizona.

The FIES also serves as the NPS representative on two other interagency committees including, the Great Basin Fire Education and Prevention Committee and the Utah Fire Communications Committee.

As well as the FIES duties in the Fire Management Program, the position also assisted with the Public Information Program in the park. This required the production of numerous press releases, media interviews, a park profile, managing the park's website and being a member of various park committees and work groups.

Following is a list of specific fire-related information/education activities for both Zion and associated national parks and the Color Country Interagency Fire Management Area. There are no exact figures for the number of people contacted in 2005 concerning non-personal fire-related messages, but it certainly numbered in the thousands.

Zion and other NPS Cluster Parks 2005

Information/Education Activity	Staff	Efforts	Contacts
Personal			
Fire Ecology Class	FIES	1	11
Patio talks (Fire)	Interpretation	14	256
Earth Day Booth	FIES, staff	1	965
Informal roving during fire activities	FIES, staff	15	147
Community Fire Plan Meetings	FIES, staff	3	24
Zion Staff Training	FIES, staff	3	52
Non-personal			
Fire Webpage	FIES	on-going	-
Success Stories	FIES	6	-
NPS Fire Reporting	FIES	3	-
Fire Press Releases	FIES	4	-
Fire Posters	FIES	5	-
Fire Restriction Newspaper Ads	FEIS	1	-
Bulletin Boards in Zion	FEIS	25	-
KCSG-TV Interview (Season outlook)	FEIS	1	-
Spectrum Newspaper (Season outlook)	FEIS	1	-

Zion Fire Use Module

The Zion Fire Use Module completed another safe and successful field season in 2005 assisting with wildland fire suppression, wildland fire use, prescribed fire and hazard fuels projects. They did have their challenges with the departure of long time lead and crew member Sean Gaines and the tragic death of crew lead assistant Steve Smith and his family in a vehicle accident. The module traveled over 14,500 miles and spent a total of 120 shifts on assignments. They were also able to attend beneficial trainings and assist the IMR with priority projects. The module also took on 9 detailers throughout the season from various agencies in Color Country and from Idaho and South Dakota. Even with the challenges the module faced during the 2005 season they were able to rise above them all and continued to produce the same high level work that the crew is know for.



Zion Fire Use Module 2005

Zion Fire Use Module Accomplishments Summary 2005

	Projects	Acres
Wildland Fire Use	4	10,600
Wildland Fire Suppression	27	12,602
Prescribed Fire Execution	21	24,780
Prescribed Fire Preparation	6	-
Hazard Fuels	3	38

Zion Fire Use Module Work Summary 2005

TASK	Person Days Worked	2005	Average (96-04)
Wildland Fire: Suppression	73	6.7%	12.2%
Prescribed Fire: Execution	200	18.9%	12.1%
Travel	147	13.9%	11.6%
Module Operations	111	10.5%	12.1%
Wildland Fire: Resource Benefits	250	23.7%	29.5%
Training	75	7.1%	8.6%
Prescribed Fire: Preparation	94	8.9%	7.5%
Hazard Fuels	104	9.8%	3.7%
Prescribed Fire: Planning	2	00.18%	0.6%
Fire Effects Plot Work	0	0%	1.3%

TOTAL -1056

Zion Helitack Module 2005

It goes without saying that this has been a challenging but rewarding season for the Zion Helitack crew. Having new management and an 80% turnover in the crew made for new faces, fresh ideas and unforeseen obstacles. All of which turned out to be a positive start for a new chapter with the helitack crew. The season brought many new changes to the program. Two seasonal positions were added to the crew bringing us to 10 positions. The added seasonal positions were funded by the Cedar City B.L.M. and the Dixie N.F., which helped us in creating a combined effort to improve on the interagency programs supported by Zion Helitack. In addition to our regular crewmembers we also supported 23 additional detailers



Zion Helitack Crew 2005

throughout the season. At times this brought our total crewmembers on duty to 14. This was important to our program this year, as we also managed two helicopters for the majority of the season. Our primary contract ship, once again provided by Classic Helicopters, was an Aerospatiale AS350 B-2 (Astar). The second ship managed was a local contractor, High Country Helicopters, which provided an Aerospatiale SA319 B Alouette III. The two helicopters flew for a total of 418 hours supporting wildfires, project work, search & rescue, and other operations that benefited our management of resources. In addition to providing local support, our crewmembers filled details in other locations. Crewmembers went to Oregon, Colorado, Idaho, Nevada, Montana, Arizona, Florida, and Texas. We look forward to next year with a new helicopter contract, the addition of new crewmembers, and another season full of hard work, plenty of overtime, and good company!

Agency	Flight Time	Passengers	Internal Cargo	External Cargo	Water Delivered
N.P.S.	20.7	164	12,365 lbs	1,268 lbs	4,310 gallons
B.L.M.	253.1	849	65,736 lbs	24,123 lbs	220,747 gallons
F.S.	118.5	390	25,728 lbs	47,150 lbs	24,977 gallons
State	24.4	106	5,940 lbs	19,064 lbs	3,133 gallons
B.I.A.	1.4	10	600	n/a	n/a
Totals	418.1	1,519	110,369 lbs	91,605 lbs	253,167 gallons

Initial Attacks	26
Fires Supported	61
Off District	4
SAR's	4
Prescribed Fire	1
Projects	7

Fuels Treatment Projects 2005

Project	Treatment Type	Acres
Canyon Piles	Pile Burn	38
East Mesa Piles	Pile Burn	41
East Mesa Blackline	Broadcast Burn	5
Canyon Mowing	Mowing	94
Canyon Tamarisk Removal	Mechanical (Thin & pile)	26
Zion Lodge	Mechanical (Thin & pile)	90
East Entrance	Mechanical (Thin & pile)	14
Lava Point	Mechanical (Thin)	38
Fire Pit Knoll Cabin	Mechanical (Thin)	3
Joint Fire Science Project	Broadcast Burn	13
Joint Fire Science Project	Mowing	20
East Mesa Prep	Mechanical (Thin)	2
Oak Creek/Watchman Housing	Mechanical (Thin)	36
		420
Three Finger Mesa Handline	Mechanical	1 mile

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)
Upper Kolob Fuels Assessment conducted in 2005
- Zion National Park Infrastructures



Joint Science Fire Project in Zion Canyon



Mowing exotics in Zion Canyon

Zion NP Wildland Fires – 2005

Fire Name	Date	Acres	Cause	Action Taken
D30	5/28	.1	Lightning	Suppression
Visitor Center	5/30	.1	Human	Suppression
Watchman Campground	6/2	.2	Human	Suppression
White Cliff	6/22	.1	Lightning	Suppression
Cave Canyon	6/28	.1	Lightning	Suppression
Coal Pits	7/22	240	Lightning	Suppression
Right Fork	7/24	.1	Lightning	Suppression
Three Marys	8/8	.1	Lightning	Suppression
Sunset Ranch	8/8	.1	Lightning	Suppression
Wildcat	8/10	.1	Lightning	Fire Use
Waynes Canyon	8/12	.1	Lightning	Suppression
Maple	9/27	.1	Lightning	Suppression
Cougar	9/27	.1	Lightning	Suppression
Jennings	9/28	.5	Lightning	Suppression
Oak Canyon	10/5	<u>.1</u>	Lightning	Suppression
		241.9		

Out of Park Assignments

Initial Attack Wildland Fires (within Zion's Response Area) – 28

Support Assignments - 88



Coalpits Wildland Fire



Spenlove Wildland Fire,

Zion Fire Business Management

Fire Management at Zion National Park is a highly complex program incorporating a full range of management objectives. In order to achieve program goals, the authorized funding in fiscal year 2005 was nearly \$2 million. This included 9 FIREPRO base and 15 projects. All fire related fiscal and administrative duties are accomplished by the Fire Program Management Assistant. The FMPA provides expertise in Incident Business Management to Zion as well as the 7 other parks in the Utah Group.

The FMPA processes all travel, payroll, personnel and procurement actions. The busy 2005 fire year resulted in the completion of over 200 travel vouchers. Each travel is complex and time consuming often allocating costs to several accounts. In addition, nearly 380 requisitions were processed.

FY 2005: Authorized Funding

FIREPRO	Authorized
Readiness	\$863,687
Fuels Management	\$536,146
Fire Effects Monitoring	\$107,778
Fuels Projects - Mechanical	\$10,000
WUI Program Management	\$122,705
WUI Projects - Prescribed Fire	\$36,466
WUI Compliance & Community Assistance	\$61,400
WUI Projects - Mechanical	\$87,623
Total	\$1,825,805



Zion Fire and Aviation Management Staff 2005 (not all present)

Permanent Staff

Fire Management Officer - Jan Passek
Assistant Fire Management Officer – Jeff Hickerson
Fire Management Program Assistant – Paula Reese
Fire Ecologist – Kelly Fuhrmann
Lead Fire Effects Monitor – Claire Crow
Fire Information/Education Specialist – David Eaker
Station Manager – James Courtright
Engine Supervisor – David Brothwell

Helitack Module

Lead – Mike Reid
Assistant Lead – Alicia Tanrath
Crewmember - Curtis Ritzman

Fire Use Module

Module Leader – Ed Waldron
Assistant Module Leader – Alex Viktora
Lead Crewmember - Greg Bartin
Crewmember – Travis Hartsburg
Crewmember - Sarah Cooper

Bryce Canyon

Fuels Specialist - Bruce Fields
Fuels Technician - Kristen Meyer

Seasonal Staff

Fire Effects Crew Lead - Alina Cansler
Fire Effects Crew - Rob Hanawacker
Fire Effects Crew - Patrick Garner
Engine Crew - Shannon Eberhard
Engine Crew - Sean Powell
Engine Crew - Izzak McHenry
Engine Crew - Mary Renzi
Fire Use Module - Kelly Boyd
Fire Use Module - Will Partin
Helitack Module - Norman Allen
Helitack Module - Carrie Bonneau
Helitack Module - Andrea Castro
Helitack Module - Jacque Watts
Helitack Module - Kim Owczarzak