



# United States Department of the Interior

NATIONAL PARK SERVICE  
Zion National Park  
Springdale, Utah 84767

IN REPLY REFER TO:

A2621(ZION-S) (IMR-D)

January 23, 1998

## Memorandum

To: Director, Intermountain Region  
From: Superintendent, Zion National Park  
Subject: Annual Narrative Report  
Reply Due: Monday, January 26, 1998

Enclosed is the requested subject report for Zion National Park for the fiscal year 1997.

Donald A. Falvey

Enclosure

## GENERAL MANAGEMENT

The signing of a Water Rights Settlement Agreement was one of the highlights on fiscal year 1997 for Zion National Park. On December 4, 1996 Secretary Babbitt and Governor Leavitt joined in signing this historic and precedent setting document. The agreement provides for establishment of a federal reserved water right and imposes restrictions on water development above the park, including the use of ground water. The potential of dam construction on both the north and east forks of the Virgin River has now been eliminated. A departure analysis process was used to define the impairment of park resources and was instrumental in effecting the agreement. This agreement was the culmination of several years of concentrated effort involving several entities including the state of Utah, Washington and Kane Counties, the U.S. Attorney's Office, the Office of the Solicitor, the Fort Collins Water Resource Division, and park staff. The signing ceremony was held at the Temple of Sinawava near the Virgin River.

Fiscal year 97 also saw the initiation of a three year process to prepare a General Management Plan for the park. A project agreement was signed in January identifying the various elements to be accomplished. Due to the intensive development planning already completed for the transportation system, this plan will focus on managing visitor uses. The title of the plan reflects this approach: Visitor Management and Resource Protection Plan. The plan will address two areas: prescriptive zoning and use levels throughout the park, and general issues affecting the park such as aircraft overflights, access and adjacent lands, resource natural areas, wild and scenic river, and wilderness. Public involvement will be sought through the use of newsletter and focus group meetings. Four newsletters went out to over 1000 people in 1997. Three focus group meetings were held in the park during March 1997: aircraft overflights, river recreation and climbing/ canyoneering. Other work completed in 1997 included developing a description of zones and identifying management concepts. This will be portrayed in a workbook format to facilitate public review. Park staff is heavily involved in preparation of this plan with each division being represented on the GMP team, chaired by Darla Sidles.

A public-private agreement was consummated in FY97 with the Cinemax Theater which provides for their serving as the northern terminus of the Town of Springdale shuttle loop. They are dedicating a portion of their property to serve as a shuttle stop and parking for tour buses. Construction of these facilities as well as a portion of the bridge connecting to the proposed visitor transit center will be at their expense. This agreement paved the way for completion of the design of a \$10 million (gross construction) contract for transportation system infrastructure. Elements of the project will include the transit visitor center and associated parking, site work and infrastructure for a bus maintenance facility, a revised intersection at the Zion Canyon and Zion-Mt. Carmel Highway and a new shuttle stop at the Zion Lodge. Other related project work, including reconstruction of a portion of Watchman Campground will be accomplished using fee demonstration funds. Advertisement of this project is expected early in fiscal year 1998.

Efforts beyond the park continued in several areas:

- Regularly participate in the bi-monthly SUPAC (Southern Utah Planning Authorities Council) meetings, an organization involving federal, state and local offices coordinating planning and management activities. Participated in developing a criteria for eligibility determinations for wild and scenic rivers which will be used by NPS, BLM and USFS managers within the state of Utah.
- Sponsored the Mayor of Springdale in a nation-wide composer in residency program.
- Participated in the semi-annual federal managers meetings, providing for coordination of NPS, BLM and USFS activities on a regional basis.
- Presented an explanation of prescribed fire management policies to county commissioners in Garfield County.
- The park was represented in a variety of public events, including the opening of the Washington County Fair Grounds, dedication of a newly constructed portion of SR-9, and interviews and articles in several regional and national radio and television broadcasts and various newspapers and magazines.

The park hosted meetings or seminars of national significance during FY97: the new superintendent's training course; the Partnership Beyond Park Boundaries training course; and the annual board meeting for the Wilderness Society.

## CONCESSIONS

The facilities and services provided by AmFac Parks & Resorts within Zion National Park were fully satisfactory this year.

With the removal of Yellowstone from the Denver Central Reservation System, no major problems were experienced with the reservation system for Zion. The only complaint letter received this year regarding the Zion Lodge operation addressed concerns regarding the need to make written reservations for group sales. The Denver office, as well as Zion Lodge Management, responded quickly to this complaint and resolved the issue in a satisfactory and timely manner. Several written comments received at the Visitor Center desk praised the tram service, the general performance of the Lodge staff and the reservation system.

Many rehab and construction projects were completed this year both with Special Accounts funds and with Concessioner funds. Restaining the exterior of the Lodge building has made a remarkable difference in appearance. AmFac purchased new draperies for the auditorium and recovered all of the auditorium chairs. Cooling the main room in the front desk area has always been a problem, especially in July and August. This summer two new swamp coolers were added and circulation paths created which alleviated the problem.

New toilet partitions were installed in the public restrooms at the Lodge and in the dorms. The areas are now easier to clean and remain cleaner looking for a much longer time. AmFac purchased a steam cleaner which is used to clean stains and dirt from the outside concrete areas. This has been a major problem for a long time, so the cleaner is a very welcome addition. The other very important purchase, a new flatwork finisher, was essential! The Dining Room linen and the linen in the rooms was always wrinkled and unsightly. Although the linen was clean, it did not look clean and, therefore, detracted from creating a positive experience in the Dining Room and in the overnight accommodations.

The concrete sidewalk in front of the New Dorm that was cracked and crumbling was replaced this spring and the New Dorm was recarpeted.

Litter pick-up and general overall cleanliness around the Lodge public areas is always a problem. The Porters are to be commended for their continual efforts in keeping the areas looking clean and litter free.

The decorations during the Christmas season were very nice this year. The Lodge looked very festive.

### Personnel

Although the employee turnover rate (40.3 percent) was low in comparison to industry averages (100+ percent), there are concerns with hiring practices and training. There appeared to be difficulties in keeping some of the departments fully staffed with competent and dependable employees. New methods and areas for recruitment are going to be tried in the coming year in an effort to achieve a higher quality employee.

Andy Grinsfelder left his position as Assistant Manager to accept a job with another company. AmFac decided not to fill in behind Mr. Grinsfelder. There is now a schedule for "Manager on Duty" for those periods when Mr. Shafer is not on property.

The new Dorm Proctor, Tim Andreen, has done an exceptional job, particularly with the grounds.

### Lodging Operations

Phase I of cabin renovation was completed in March in time for the busy pre-Easter season crowds. The room improvements are impressive and have been very well received by the visiting public. Phase II began in November and has been progressing even more rapidly than the last phase. Additional improvements have been added to this phase such as replacing the metal windows with wooden ones.

Locks for all the motel rooms and cabins were replaced with a card-key system that greatly enhances safety. The vinyl was replaced in the remaining sixty-one motel unit bathrooms. New wallpaper was put in all rooms in the "A" Motel unit, and the lobby in the "B" Motel unit was refurbished with silk plants and pictures. The lobby is now more inviting for guest use. Mr. Iverson has kept the rooms up to his usual high standard of cleanliness, assuring the guests a quality overnight experience.

### Lodge Dining Room

Inconsistencies in the quality of food this season made the service disappointing. The on-going problem with the linen was solved with the new flatwork finisher. The Dining Room staff stopped using placemats on the tables for lunch and breakfast service. It took most of the season to get them replaced. There were seasonal placemats and a Christmas tree during the holidays which provided a very nice touch.

The Food Sanitation Inspector noted three critical violations during this first season of using the new sanitation inspection methods. An overall rating of satisfactory was awarded and new criteria and remedial actions were discussed with management staff.

### Snack Bar

Serious problems were noted this year in the Snack Bar. Several employees were observed displaying less than hospitable attitudes to guests and other employees on various occasions. It was very obvious that there were great deficiencies in training. The overall cleanliness was far from ideal. Of course, design problems and high visitation create long lines, but employees did not take the extra steps to try and alleviate some of the problems.

From the beginning of the season until mid-season, NPS staff and Concessions Staff had numerous conversations regarding the on-going congestion and poor attitudes. In July, the formal evaluation produced a low score which resulted in a porter being assigned to specifically clean the Snack Bar area. Cones were purchased which featured a wrap for more sanitary handling. Although sanitation and cleanliness improved, there was little improvement in the demeanor of the employees.

### Gift Shop

The Gift Shop continues to improve in appearance and merchandise. Mr. Kendall Suwyn, the Manager, accepted a promotion and transfer with AmFac and was replaced by his Assistant, Ms. Kirsten Hansen. Mr. Suwyn will be greatly missed, but Ms. Hansen is expected to continue excellent service in this department.

During a formal evaluation, two items were found to exceed the acceptable markup percent which resulted in a lower than normal evaluation score. There have been several pricing discrepancies in the last two years and hopefully this problem will be eliminated in the future.

### Hiker Shuttle/Tram Services

Three trams were available for service this season which provided uninterrupted service for the second year in a row. The Hiker Shuttle was involved in an accident early in the season. It was an unusually wet year, requiring cancellation of some of the Narrows trips. A lot of feedback was received throughout the peak season regarding a lack of sufficient hiker shuttle service. The NPS asked AmFac if they would like to increase their service or waive

their right to provide exclusive hiker shuttle service in the park. In October, AmFac officially waived the right to provide exclusive service. Additional service will be provided through the Incidental Business Permit process.

### Contractual Compliance

All aspects of the AmFac contract are dealt with in a cooperative, efficient manner.

## ADMINISTRATION

### Budget

The ONPS allotment for fiscal year 1997 at Zion was \$2,774,400, plus 1,455,000 designated as Fee Enhancement for a total of \$4,229,400.

#### Additional Funding Sources:

Volunteer in Parks	\$ 6,500
Equipment Replacement (Computers)	10,510
IBP's	2,200
Special Use Permits (Filming)	3,640
Special Use Permits (Tunnel Operations)	288,530
Fee Collection Operations	352,500
Fee Demonstration Program	1,005,557
Golden Eagle (Fee Demo)	180,468
Drug Enforcement	10,000
Construction (Campground Rehab)	418,000
Cyclic Interp Set Aside (2 projects)	47,500
Hazardous Waste (1 project)	5,000
Repair/Rehab (3 projects)	280,000
Cyclic Maintenance (2 projects)	119,300
Emergency Roads Funding (Landslide)	28,093
Challenge Cost Share (1 project)	1,000
Cultural Resource Preservation (2 projects)	77,200
Science Projects (2 projects)	39,000
Fire Management	220,375
Prescribed Fire Module	146,460
Prescribed Fire Projects	68,200
Total Special Funds	3,310,003
Total ONPS	<u>4,229,400</u>
GRAND TOTAL	7,539,403

We expended \$11,930 for 8 major search and rescue incidents in FY97.

### Contracting

The following contracts were awarded:

- CX 1590-7-0001 - 2,790 feet of six inch ductile iron pipe. Awarded to Plumbers Supply for \$25,086.76.

- CX 1590-7-0002 - 980 tons of coral sand mix for the Watchman Campground. Awarded to MacDonald Concrete for \$32,810.40.
- CX 1590-7-0003 - Aggregate chips ½ inch for Cedar Breaks road. Awarded to Western Rock for \$13,000.00.
- CX 1590-7-0004 - 30,000 gallons of asphalt material for Cedar Breaks road. Awarded to Koch Materials for \$34,200.00.
- CX 1590-7-0005 - 7,000 feet of eight inch ductile pipe - C-900 PVC waterline. Awarded to U.S. Davis Waterworks for \$27,652.32.
- CX 1590-7-0006 - Construction of shade structure for D loop, Watchman Campground. Awarded to Apache Enterprises for \$26,021.00.

#### Procurement

Purchase orders for Zion total 513; for Cedar Breaks 19; for Pipe Spring 13.

Fourth quarter dollars spent = \$713,000.

Number of drafts written for procurement only = 645.

Total dollar amount of drafts:

August = \$93,765.12

July = \$125,019.28

Number of credit card purchases for procurement only = 434 transactions.

Number of GSA orders = 28.

Number of imprest vouchers for supplies = 40; total dollar amount = \$39,042.60.

Number of travel/tunnel escort imprest vouchers = 19; total dollar amount = \$24,432.68.

Requests for Quotes issued = 20.

#### Property

Small lot sale proceeds \$2,684.36.

#### GSA/Interior Vehicles

Submitted GSA vehicle replacement request for 1998.

Negotiated cross service agreement for GSA vehicle charges.

Issued nine license plates for interior equipment.

#### Human Resources

The Personnel Officer position was vacant from April through July 1997.

## Staffing

### Permanent Employees

ZION	98
CEBR	3
PISP	5

### Vacant Permanent Positions

ZION	9
CEBR	0
PISP	0

There was one new permanent position established at Zion, a GS-1315-11 Hydrologist.

### Term Employees

ZION	3
CEBR	1
PISP	0

### Temporary/Seasonal Employees

ZION	56
CEBR	9
PISP	9

A total of 10 Merit Promotion Vacancy Announcements, 23 Recruitment Bulletins, and 12 Delegated Examining Unit Announcements were issued by the Human Resources Office.

### Classification/Position Management

Due to the changeover in Personnel Officers, park position descriptions were sent out of the park for reclassification by a regional classifier. However, in 1997 twenty-five positions were reclassified by the Zion Human Resources Office.

### Employee Development

The Human Resources Office will be assuming the training/employee development function formerly carried out by the Budget Office. A Training Coordinator has been designated within the HR Office and will be taking on the new duties in February 1998.

## MAINTENANCE

### Buildings and Utilities

Housing - Zion maintained full occupancy of all permanent housing and 90% in seasonal housing throughout FY97. Minor rehabilitation was accomplished on three houses during short vacancies. Two houses remain on the list for total interior rehabilitation once the houses become vacant and funding is available. Oak Creek housing area sewer system is in need of replacement. It is requiring more and more maintenance due to age and root intrusion.

Zion maintenance replaced a damaged shed structure in the historic maintenance yard with assistance from the Resource division and SHPO.

Three large sections of waterline were replaced in the water distribution system. Three-thousand feet serving the main canyon and two smaller sections serving Watchman Campground and the new transportation system.

Phase I of the new transportation system, which included the redesign of loop D in Watchman Campground and new underground electrical distribution to all of Watchman Campground was accomplished by park day labor with planning and design by DSC.

The Grotto picnic area septic system was replaced using an existing lift station to the main sewer system as a backup.

A new automated weather station was installed on the east side of Zion by the National Weather Service with Zion maintenance providing the power and phone lines.

### Roads and Trails

Zion maintenance crews patched, chip sealed, and re-stripped six miles of road at Cedar Breaks National Monument. The work was completed by day labor crews.

Approximately one mile of roadway was patched and chipsealed on routes #10 and #11; both routes then had a new centerline stripe added for a total of 20 miles.

The Roads and Trails crew participated in a joint effort with the BLM to patch and chip seal a ½ mile section of roads and campsites at the Red Cliff Campground that is managed by the BLM. The Bureau of Land Management had neither the manpower of the equipment to complete the project and asked us for assistance.

The ERFO project at the slide area was completed with a 150' section of split-rail fencing installed and one mile of roadway repaired, chip sealed and restriped.

The maintenance division brought on six YCC's to help with various maintenance activities including two YCC's on the fence repair crew, two on the backcountry trails crew, one on the road crew, and one on the buildings and maintenance crew.

Two historic rock walls on the Zion switchbacks that had pulled away from the adjacent roadway had to be dismantled and relaid by the Zion maintenance crew - 400 feet in all.

A fifty foot section of road on the Mt. Carmel Highway was undermined and washed out. Repairs were completed by Zion maintenance crews.

## RESOURCE MANAGEMENT & RESEARCH

### Program Management

Staffing for 1997 included eight permanent and 20 temporary/seasonal positions. The Division is currently comprised of natural, cultural, and GIS programs. Division Chief Vic Viera retired at the end of the fiscal year. His replacement, Jeff Bradybaugh, currently stationed at Mammoth Cave, will enter on duty in December, 1997.

<u>Permanent</u>		<u>Temporary/Seasonal</u>	
GS-13	Chief	GS-09	Archaeologist
GS-12	Assistant Chief	GS-07	Archaeologist (3)
GS-05	Administrative Support Clerk	GS-05	Cultural Technician (7)
GS-11	Botanist	GS-09	Natural Resource Spec.
GS-11	Wildlife Biologist	GS-05	Biological Technician (4)
GS-11	GIS Specialist	GS-07	Biological Technician (3)
GS-11	Archaeologist	GS-04	Biological Technician
GS-09	Backcountry/Wilderness Coordinator		



Park ONPS for the Division was increased by 8% from 1996. This included carryover from the previous year. For 1997 ONPS, plus special projects and support funds, 16.16% went to administration which included personal services, vehicles, equipment, miscellaneous; 31.83% funded the cultural resource program; 38.77% went to natural resources; and 9% to GIS. Support funds, which included funds from the Zion Natural History Association and the Transportation and General Management planning efforts, made up 4.24% of the total. Of the total budget for 1997, 29% was ONPS and 71% special projects and support.

### Planning

#### Visitor Management Resource Protection Plan

The Resource Management and Research Division staff was extensively involved with the general management planning process in 1997. Resource Management staff filled such roles as the Park Planning Coordinator, the GIS Specialist, and the Natural and Cultural Resource Management representatives for the planning process. Several week-long planning meetings, numerous staff meetings, meetings with local communities and special interest groups, and long hours of resource management analysis and general planning have contributed to the process thus far.

#### Wild and Scenic Rivers

Resource Management and Research Division staff have been involved in a planning effort to determine if any rivers in Zion should be included in the National Wild and Scenic Rivers System. In 1997, a significant amount of time was spent in interagency meetings with the BLM, Forest Service, state, and local governments to standardize the eligibility process.

### Special Assignments

The assistant division chief for Resource Management and Research, who also serves as Cultural Resource Specialist, was appointed to a two-year position on the Cultural Resource Advisory Team (CRAT) for the Colorado Plateau. The advisory team, in coordination with the Intermountain Regional Office in Denver, cultural centers, and the Cluster Leadership Council, addresses cultural resource issues at the park and cluster level. This year CRAT was actively involved in development of a 2-year science strategy for the Colorado Plateau. Members of CRAT also served on rating panels for the Special Emphasis Program Allocation call for 1998.

The Chief of Resource Management and Research served as a member of the Natural Resource Advisory Committee (NRAC). The role and function of NRAC is similar to that of CRAT. Upon the Chief's retirement elections were made for his replacement. The new Division Chief was selected to fill that vacancy.

The park Botanist participated on a national wildland fire management overhead team as a trainee prescribed fire behavior analyst. She completed two assignments with the team at Bandelier National Monument and North Cascades National Park. She will remain on the team during FY98 as the fire behavior analyst. Additionally, she taught fire behavior and fire ecology at several regional and national training courses and provided consultation to the fire management office on development of potential burn areas and fire effects monitoring types. She also served as a Fire Ecologist for the Mexican Spotted Owl Recovery Team working group on the Colorado Plateau, as a representative on the Virgin River Basin Tamarisk working group, and on a rating panel for Colorado Plateau natural resources funding.

The Backcountry/Wilderness Coordinator served as the Planning Coordinator for the General Management Plan. This year the assignment involved coordination of all DSC/park meetings, staff meetings, special projects meetings, and coordination with local government and special interest groups. Day-to-day activities included assistance with planning newsletters and coordination and completion of planning assignments to the 18-member park planning team.

### Geographic Information System Program

Forty-three GIS projects were completed in 1997. Project work included the development of GIS databases, landscape analyses, development of spatial models, and production of hardcopy maps. Thirty-one of the 43 1997 projects were GMP related. These included the development of Landscape Units, Landscape Unit Attributes, T&E Animal Population Habitats, Rare and Sensitive Plants, Cryptobiotic Soils Model, six Cultural Resource models, Natural and Cultural Resources Values and Sensitivities Analyses, Natural Resource Richness, GMP Concept maps, Wilderness Designation, Private Land Inholdings, and other data themes.

Several GMP and other products were done with the assistance of a seasonal GIS technician.

Two Global Positioning System (GPS) training sessions were completed for Fire and Resource Management Division personnel.

GPS field data was acquired for inclusion to GIS databases including boundary lines, Public Land Survey section line monuments, park infrastructure, trails, roads, archaeological sites, wildlife survey plot sites, and others.

The park GIS Specialist is an active member of the Southern Utah Planning Advisory Committee (SUPAC) Data Topical Advisory Group and has worked cooperatively with GIS professionals from neighboring Federal and State land management agencies.

A science poster of the GMP GIS analyses was developed and presented at the Colorado Plateau Biennial Research Conference in Flagstaff, Arizona.

ArcView GIS system hardware and software was acquired to supplement the Arc/Info core system. This increase in hardware and software was needed to handle the greatly increased workload in this program.

### Natural Resources Program

#### Non-native Plant Program

This year's non-native plant program increased efforts and results immensely, in part through efforts to recruit volunteers and visitors. A new noxious weed, spotted knapweed (*Centaurea maculosa*) was discovered on locations along the Kolob Terrace Road. Six hundred twenty-five plants were removed. Twenty-one species of non-natives were targeted and over 322,000 plants were removed or received herbicide treatment. A total of 459 volunteer hours were accumulated. Many areas of the park known to have non-native plant populations were surveyed to determine the effectiveness of past treatment and spread of the populations. A comprehensive report, 1997 Exotics Eradication Report Summary, is available in the vegetation office. A presentation was given at the Colorado Plateau Biennial Research Conference.

#### Revegetation Program

Approximately one-half of the Sentinel Slide area was revegetated in FY96. The remaining area, primarily construction staging sites, was revegetated in FY97. In October, a class from Dixie High School in St. George planted rabbitbrush (*Chrysothamnus nauseosus*) and four-winged saltbrush (*Atriplex canescens*) in the approximately 0.1 acre area just south of the new road support wall. The area was seeded with a mix of native grasses and a few forbs. The construction zone north of the wall was also planted and seeded with the same species by park personnel. The sites are being monitored for survival and germination. Revegetation and monitoring information is available in the vegetation office.

In the Kolob District, revegetation efforts focused on the area at the end of the scenic drive where denudation had occurred adjacent to the parking area. Several species of shrubs were planted, and forbs and grasses were seeded. Watering of the area continued through the summer; however, water may have been insufficient during the hotter periods. Many oaks exhibited drought deciduousness, a trait not observed in the established plants. During the

cooler fall the oaks appeared to be doing better. Monitoring has been established. Revegetation and monitoring information is available in the vegetation office.

Revegetation plans for four acres in loop D of the Watchman Campground were developed. Joyce Lapp, Glacier National Park, assisted in developing species lists and quantities. Contracts were developed for plant material to be provided in FY98. Consultation continued on the revegetation efforts for the transportation system.

#### Visitor Experience and Resource Protection (VERP)

Potential indicators were measured in various communities to determine feasibility of the indicators and potential levels for standards. Soil was collected and analyzed at each site. Final draft indicators and standards will be released in FY98.

#### Wildlife

The Mexican spotted owl monitoring program continued into its third and final year. Owl reproduction was found to be very low this year with only 1 pair producing young. One new territory was discovered.

Peregrine falcon monitoring was continued at a reduced level in 1997. With the assistance of 4 volunteers, personnel from the Utah Division of Wildlife Resources, 3 Resource Management personnel, and funding from the Challenge Cost-Share Program, 13 of 15 territories were monitored for occupancy and reproduction. Five territories associated with rock climbing sites were monitored intensively in order to determine nesting location, reproductive success, and fledging dates so that cliffs previously closed to climbers for falcon protection could be opened if peregrines were not using them.

Desert tortoise surveys were completed in the vicinity of the proposed site for the new visitor center, bus maintenance facility, and emergency medical facility in compliance with Section 7 (Endangered Species Act) consultation for the Zion Transportation System. No tortoises or tortoise signs were found.

A parkwide monitoring program was begun for breeding birds, small mammals, and lizards in riparian, pinyon-juniper woodland, and ponderosa pine habitat types. Mule deer were monitored during the winter for signs of a recurring pinkeye problem. No signs of disease were observed.

A project to survey aquatic invertebrates at Pipe Spring National Monument was initiated in September. Samples will be collected at ponds and waterways at the site throughout the next year. All samples will be sent to contractor for identification of species.

#### Geology

The park continued with its geological mapping project this year under a cooperative agreement with the Utah Geological Survey. Five quadrangles in the southern part of the park are being mapped and digitized. Much of the field work for the project was accomplished during the year.

The park initiated a paleontological inventory project this year with the assistance of a paleontologist from Fossil Butte National Monument. Funding was obtained from the Geological Resources Division to pay travel costs and to pay the stipend of two student interns who worked during the late summer. Good progress was made mapping known paleontological localities, including all of the park's dinosaur trackways and those at Pipe Spring National Monument.

#### Backcountry/Wilderness Program

Resource Management staff continued the backcountry campsite inventory and monitoring program. Nine new designated campsites were located along the West Rim train. These sites were inventoried at the beginning of the season and monitored late in the season to detect changes in use levels and impacts. Two campsites were located,

inventoried, and monitored along the Subway route. Several new backcountry routes were hiked and assessed for visitor use impacts. Due to funding constraints and the general management planning detail, not all backcountry campsites were monitored. One part-time biological technician did the bulk of all resource management backcountry project work.

#### Visitor Use Counts on Main Canyon Trails

A very dedicated volunteer spent two to three days each week from May through October conducting visitor use counts on the trails in the main canyon. A Sierra Club volunteer service project also collected data during the month of July. The goal was to obtain baseline information on visitor use levels on trails, prior to the shuttle system implementation. One hundred twenty-seven day-long counts were made in 1997.

#### Cultural Resource Program

FY97 was a big year for the Cultural Resource Program at Zion. We received funding through the CRPP program to begin work on an archaeological data recovery project in Parunuweap Canyon, and the funding for the Cedar Breaks Archaeological Survey continued from last year. The Fire Program provided funding for four large compliance surveys, and some funds were obtained from the Transportation System for compliance purposes.

The year started out with the departure of the crew leader to pursue a position at Southern Utah University. A seasonal GS-9 crew leader archaeologist was hired to replace her, and two GS-7 crew leader archaeologists were hired during the year to meet project demands. Seven GS-5 cultural technicians were hired at different times during the year. At the end of the summer, eight seasonals were working at the same time.

Project work for the year began with winter report writing for FY96 projects. As the weather warmed up in the spring, and 300-acre survey was conducted in the southeastern corner of the park using funds that had been carried over from FY96. Twenty Virgin Branch Ancestral Puebloan archaeological sites were recorded in an area identified by GIS as a blank spot in park databases.

The crew then moved into Parunuweap Canyon to conduct an emergency excavation at an Ancestral Puebloan structural site on a bluff that was crumbling into the river. A storage cist and a pithouse were partially excavated in an effort to recover data before it was lost to erosion. Smaller scale test excavations were also conducted at two nearby sites. One badly eroded storage cist was excavated.

During the previous two projects, construction monitoring and testing were conducted for the Transportation System in Watchman Campground and in Sammy's Canyon. A variety of miscellaneous historic materials were documented, all of which were determined to be non-significant.

With the weather getting very hot in Zion, the crew moved to the cool forests of Cedar Breaks National Monument. This is the second of a three-year project that has been funded out of the Systemwide Archaeological Inventory Program. Ninety-six high altitude lithic procurement sites were recorded on the rim of the breaks in a very productive field season. Inventory of the entire rim area was accomplished this year. Other important accomplishments included the collection of field data by contractors and cooperators for paleoenvironmental reconstruction using bristlecone pines, bog pollen, and spring mound macrofossils.

During the late summer, a second archaeological crew was established to begin work on a series of large compliance surveys for the Fire Program. Intensive surveys were completed for Hop Valley, Pocket Mesa, and Goose Creek in preparation for a prescribed burn. As the field season ended at Cedar Breaks, crew members were added to the fire survey crew. This project was ongoing as the fiscal year ended.

#### Researchers

The park issued eight research permits in 1997 for the following: bighorn sheep (2), Mexican spotted owls, hanging gardens, geological specimens, fish, lizards, and vegetation patterns at seeps and springs.

In late summer the park's research camp was closed due to potential flash flooding, and researchers were moved into park housing.

### Integrated Programs

#### American Indian Access and Collection Policies

A memorandum of understanding (MOU) was developed with Southern Utah Paiute Tribes for the gathering of plant and mineral resources. The MOU is between Zion National Park, Cedar Breaks National Monument, Pipe Spring National Monument, the Kaibab and Moapa Tribes, and the Paiute Indian Tribe of Utah. The MOU was developed because of requests by tribal members to collect materials on park lands in order to continue their traditional use of park resources. Southern Paiute traditional use has been formally documented through ethnographic study in the three parks. Development of the MOU was a joint effort with tribal representatives and NPS staff. It is currently being reviewed by Regional Director John Cook for approval. The procedure to gather materials in the park units will involve submitting a permit that has been first approved by a tribal office and then presented to the Resource Management and Research Division. The permit will identify what and how many resources are to be collected. A joint monitoring program will be developed that will include park staff and tribal members in evaluating areas of the park that have had collection activity occur.

Office Order No. 24 was finalized on August 5, 1997 in regard to American Indian Fee Exemptions. The fee exemption policy permits members of the Southern Utah Paiute Tribes free entrance into the park for religious, ceremonial, or other customary traditional activities that were performed historically. After presenting a tribal membership card upon entering the park the fee is waived for camping, vehicle escorts through the tunnel, and the transportation shuttle (once it is in operation). This policy is consistent with fee exemption policies for Pipe Spring and Cedar Breaks National Monuments. The policy was formalized because of requests by tribal members to have entrance fees waived because the park was once a part of their traditional homeland. This has been substantiated through ethnographic research that was conducted in 1994.

#### NEPA/NHPA Compliance

Nineteen Project Review Forms were submitted to the division for review of proposed projects that had potential effects on natural and cultural resources. Four Assessment of Effect forms were submitted to the Utah State Historic Preservation Office and the Advisory Council on Historic Preservation for review of projects that were determined to have no adverse effect on cultural resources. Fourteen categorical exclusions were cited under NEPA.

An analysis of the biological and cultural resources was completed for a land exchange in which the park will receive approximately five acres adjacent to its southern border south of the Watchman Campground in return for approximately five acres on the east border near the Sunset Canyon Ranch along the Kolob Terrace Road. The final analysis document is available in the vegetation office.

An environmental assessment was completed for installation of a radio repeater in proposed wilderness. The repeater will be installed on Wynecopits Mountain in order to improve radio communications in the Narrows. In the past, search and rescue operations have been hampered because of the lack of radio communication in this area of the park. A biological evaluation was completed to address potential impacts to Mexican Spotted Owls and Peregrine Falcons who occupy territories in near proximity to the project area. The environmental assessment also addresses routine and emergency maintenance for three existing repeater sites.

An environmental assessment for the Canyon Transportation System was released for public comment in June 1997. The plan presented the proposal which included the implementation of a shuttle bus system and associated infrastructure along with alternatives considered. In addition to the shuttle bus system a new visitor center, bus maintenance facility, an emergency services building, and shuttle stops are planned. A finding of no significant impact was signed by Superintendent Falvey in October.

Phase One of the Zion Lodge Western Cabin renovations was completed this fiscal year. This work follows a Historic Structures Report by private architect James McDonald in 1996. The intent of this project is to remove the non-compatible interior wall, floor, and ceiling fabric and attempt to reintroduce a more historically accurate setting. The first 20 cabins were completed, and Phase Two of the project is currently underway. In addition to interior modifications, the aluminum windows are being replaced with wood window sashes similar in design to the original windows.

Historic Flanigan Ditch was formally evaluated for listing in the National Register of Historic Places as part of mitigation efforts in relation to construction of a bus maintenance facility for the Transportation System. The research was conducted through Historic Sites Research. Flanigan Ditch was constructed around 1880 by local pioneers to water agricultural fields along the Virgin River. The ditch was recommended for listing with concurrence from the Utah State Historic Preservation Office and has been submitted for approval by the National Register.

#### Youth Conservation Corps

For the first time the division used a three member YCC crew for eight weeks. Crew members were used for GMP visitor counts at the major trailheads, assisted the archaeological crew in Parunuweap Canyon with site recording, monitoring, and excavation, and also assisted several of the researchers with wildlife inventory and monitoring.

#### ProCite

Most of the Resource Management and Research Division library's reference material was entered into the ProCite bibliographical database, bringing the total to over 1,500 entries input by the end of FY97. A newer, faster version of the database will be ordered in FY98.

## RESOURCE AND VISITOR PROTECTION

### Fee Management

Zion implemented its fee demonstration program on March 31, 1997 including:

1. Increased entrance and camping fees.
2. Addition of Kolob Canyons District as a fee collection site.
3. Establishment of a backcountry permit desk with fees being charged for backcountry use.

Zion collected \$4,570,982 in FY97 including all recreational fees and special use permits for the Zion-Mt. Carmel tunnel.

The park received \$1,005,557 in additional revenue from the fee demonstration program which to date is being used to rehabilitate the deteriorated Watchman Campground, rehabilitate the Emerald Pools trail, improve facilities at the Kolob Visitor Center, and to improve the fee collection equipment, security, and efficiency.

1997 was a year of staffing changes. With the expiration of 4 year term appointments drawing near, term employees had the opportunity to compete for permanent, subject-to-furlough positions. Within the division, 7 term employees were successful at attaining permanent status. An additional 7 permanent positions were announced and filled with former seasonal employees from Zion and other parks.

### Visitor Protection

The park began utilizing the Case Incident Reporting System (CIRS) on January 1, 1997 but has not fully implemented it in the field due to a new computer network and associated problems.

1997 saw a decrease in parkwide visitation (-2.1%), which may be contributory to a downturn in a number of statistical categories. Conversely, our Division's budget increased from \$912,900 to \$960,900 during FY97. Despite the budget increase, Patrol lost a position while all other operations remained the same or, as in the case of Fee, increased slightly. FY97 was a year in which we were able to convert at least three seasonal patrol positions at 3 temporary dispatch positions to permanent and subject-to-furlough.

From a statistical standpoint, our '97 law enforcement figures are somewhat misleading due to the fact that this was the first year of data entry and recovery utilizing CIRS. For instance, CIRS regards fee fraud as "Larceny - Theft"; consequently our numbers jumped from 11 to 140 (of which 106 were fee violations)! As a result, Part I totals went from 32 to 141.

Part II offenses were similarly skewed in that parking violations are now being recoded as "all other offenses", resulting in a jump in Part II totals from 331 to 1963.

There were four fatalities in the park this year...two traumatic and two cardiac.

Cooperative law enforcement activities with Washington and Kane Counties continued to increase. EMS assistance with local communities continues to improve with Zion R&VP employees achieving paramedic certification. The park also was host to several training sessions for NPS and other agencies including the annual law enforcement refresher, advanced SAR training, Utah State rifle and DUI training, and the International Society of Forensic Entomologists meeting among others.

As part of the cost recovery provision in NPS-53, an administrative fee for Special Use Permits was implemented on January 1, 1997. Several special use permits for weddings were issued along with several commercial filming permits, including a PBS production for "Bill Nye the Science Guy" and an episode of the TV series "The Promised Land". Not only were administrative costs recovered, but the park also received a sizable donation for revegetation projects from the "The Promised Land" production.

#### 1997 R&VP Workload

This Year	Previous Year	% Change
Visitation - 2.51 million	2.52 million	-2.1%
Incidents - 3,532	4,472	-21%

#### Law Enforcement Incidents

1,507 Citations	1,871	-19%
700 Warning Notices	1,268	-44%
44 Arrests	32	-27%
34 Drug Violations	86	-60%
9 DUI's	17	-47%
52 Liquor Law Violations	140	-62%
52 Natural Resource Violations	456	-88%
24 Weapons Violations	24	n.c.
11 Vandalism	20	-45%
0 Burglary	17	-100%
52 Agency Assists	21	+147%

#### Service Incidents

584 Visitor Assists	1,341	-56%
23 SAR's	22	+4%
233 EMS Incidents	321	-27%

## Fire Management

In 1997 Zion reported 60 wildland fire incidents. Six were natural fires, all small, the greatest number in the past 10 years. Zion crews suppressed nine wildfires, the largest 20 acres, and assisted other agencies on 35 incidents. Prescribed fire operations began in April and progressed through the summer into fall to continue protection of the east boundary. The first unit on the Horse Pasture Plateau, Goose Creek, was ignited in November. Nine prescribed fires were reported, for a total of 1100 acres - by far the most productive year for prescribed fires in Zion. In May, lightning ignited several wildland fires just outside the park, including the Cogswell fires, which caused severe smoke impacts in Zion Canyon. Personnel assisted Color Country helitack and type two crews. The Zion Prescribed Fire Module had a very active season, supporting prescribed fire operations in New Mexico, Arizona, and California parks and forests.

## Backcountry

Backcountry visitation for 1997 appears to have kept pace with recent yearly increases of about 9%. The newly implemented fee program seems to have had a negligible impact on the Zion backcountry visitation totals for 1997.

Five backcountry employees, one permanent ranger and 4 seasonal rangers, were hired in 1997, all of whom were first-time Zion employees.

Backcountry staff continued to work with local Scout groups and Leave No Trace proponents throughout the year in an effort to provide increased protection and appreciation for the park's resources.

SAR, EMS, traffic, and resource incidents compared favorable, in terms of total numbers, with those numbers recorded over the last five years. No wildlife poaching incidents are known to have occurred within the park; however, hunting violations in areas adjoining the park increased.

Many man-hours were devoted by the backcountry staff in implementing and enforcing visitor limits in the Left Fork drainage. Considering the magnitude of this initiative it was, overall, a success story.

## INTERPRETIVE DIVISION

### Personnel:

Permanent Vacancies: Environmental Education Coordinator Ernestine Tesarek resigned in April, replaced by Kelly Connor in August.

The permanent staff consisted of:

Chief I & VS Denny Davies, GS-13

ACI & VS Rich Fedorchak GS-12

Lead Park Ranger Bob Showler, GS-11

Interpretive Specialist Christi Carmichael, GS-09

Park Ranger (Environmental Education Coordinator) Kelly Connor GS-09

OA Clerk Janis Kali, GS-05

Curator Steve Floray, GS-11

In 1997 there were a total of 10 front-line seasonal interpretive positions and a core of four dedicated volunteers who added greatly to the visitor center staffing.



In 1997 the Division of Interpretation also coordinated the Backcountry Fee Operation (funded by Fee Demo Money). Backcountry Fee included one Term Supervisor (Dave Rachlis, GS-07), three seasonal employees, and one SCA.

#### Program Emphasis:

- 1) Reorganize scheduling to maximize visitor services (8 a.m. - 8 p.m. visitor center desk hours during the "peak" season plus at least 7 interpretive programs daily) with reduced staffing (two front-line seasonal rangers) from the previous year.
- 2) Continue to focus personal service interpretation on the thematic approach while encouraging innovation in interpretive techniques. Staff training and coaching were conducted to develop more effective ways to communicate to park visitors who we are, what we do, why we are here and how the visitor is a part of protecting this (and all) national parks.
- 3) Reorganize the Backcountry Permitting Process to include issuing of backcountry permits at a separate desk from the visitor center desk, establishing procedures for the new Backcountry Fee permitting process, charging fees for backcountry permits, and training a new backcountry permit staff to issue permits and to learn the Zion backcountry resource first hand by foot patrol.

#### Visitor Response:

Visitor response to the 1997 program was outstanding. Many, many comment forms and unsolicited letters thanked the park for the program effectiveness and the originality of some of the presentations. Responses came I for both the regular as well as the Junior Ranger program—all help the management staff gauge the effectiveness of the overall program.

#### Site Bulletins and Other Printed Media:

In 1997, efforts continued to improve, simplify, and consolidate several site bulletins. The division is responsible for the production of many pieces of park information on specific uses and/or park resources. Notable improvements to site bulletins included those to the German and French brochures, the plant checklist, and the horseback riding brochure. Seasonal Park Ranger Maria Walton completed most of the computer work to make these changes.

#### Non-personal Services:

Development of three wayside exhibits for the Emerald Pools Trail.

Installation of state-of-the-art equipment, including amplifiers, speakers, CD players, and wiring into the South and Watchman Campground Amphitheaters.

Replacement of the Visitor Center Auditorium video projector.

#### Junior Ranger/Educational Outreach Programs:

With the vacancy in the Jr. Ranger Program Coordinator position, the park decided to utilize the skills and experience of seasonal ranger Julie Hancock to assume the duties of acting supervisor starting in late April. She was assisted by Park Ranger Roger Kline. In late August, Ranger Kelly Connor was hired as the permanent Jr. Ranger Program Coordinator to fill the position vacated by Ernestine Tesarek in April.

In 1997 a total of 1,695 children ages 6-12 participated in the Jr. Ranger Program. Through the Outreach Program to surrounding schools, 2,653 elementary age students, grades 2 through 6, received environmental education classes during the Spring/Fall sessions.

### Curatorial Management:

Under Curator Steve Floray, museum/curatorial accomplishments for 1997 included: the elimination of 95% of the cataloging backlog of the park's resource management archives; the establishment of a temporary museum exhibit program, which included the construction of a new exhibit case and two interpretive panels located in the museum; the elimination of the archaeological cataloging backlog; the return to the park of archaeological materials from the Midwest Archaeological Center in Lincoln, Nebraska; the complete redesign of the park's archaeological storage; cataloging and proper storage of the Zion and Cedar Breaks Lantern Slide Collections; purchase of digital environmental monitoring equipment for museum areas at Zion and Pipe Spring; purchase of additional storage equipment to house the Cedar Breaks archaeological collection; the preparation, approval, and implementation of the parks' Scope of Collection Statements for Zion, Pipe Spring, and Cedar Breaks; approval and implementation of the Collection Storage Plan at Pipe Spring; elimination of 85% of the history collection cataloging backlog.

### Interpretive Planning:

The Interpretive staff was heavily involved in the planning for the new Visitor Center and the Transportation System. Based on staff feedback, one significant change to the visitor center design was the replacement of a large, stationary information desk with smaller, mobile desk units to allow greater flexibility in how staff make visitor contacts. All interpreters were given the opportunity to review exhibitory concept design plans produced by Main Street Design, Inc. The direction of interpretive feedback was toward answering commonly-asked visitor questions and assisting with visitor orientation and toward rearranging exhibits into a more organized fashion. The planning process was very time-consuming but well worth the effort in view of the potential to redefine how visitors will use and enjoy park features for the foreseeable future.

### Public Information Officer:

Division Chief Denny Davies continued to handle PIO duties in addition to his other responsibilities. Notable occurrences warranting media attention included three accidental fatalities in Zion. Because many issues continue to occur that require thoughtful, informed response which can only be accomplished with a dedicated staff member, the park will need a full-time PIO sometime in the not-too-distant future.

### Special Events:

1997 Seasonal Training emphasized the significance of the Zion Resource with additional sessions on interpretive skills. Several speakers, both from within the park and from other agencies/organizations spoke on such topics as geology, wildlife and plant resource management, archaeology, birds, reptiles, invertebrates, etc. shared knowledge with new and returning interpretive staff.

Christi Carmichael and Bob Showler coordinated the National Audubon Society's Annual Christmas Bird Count. Twelve parties counted individuals and species of birds between Grafton and the East Entrance of the park.

### Zion Natural History Association:

1997 was a busy year for the Zion Natural History Association publication program. ZNHA published revised versions of The History of Arizona's Pipe Spring National Monument by David Lavender and the Alpine Pond Trail Guide, a guide to one of the most popular trails in Cedar Breaks National Monument. ZNHA published A History of Southern Utah and its National Parks by Angus M. Woodbury, which first appeared in the 1944 Utah Historical Quarterly. ZNHA also printed 2 new posters in 1997, Babbling Waters, a reproduction of a painting by Thomas Moran and Portal—The Narrows, a reproduction of a Lynn Berryhill painting. The first stages in the development of a new publication for Pipe Spring also began in 1997.

ZNHA continued its support of the Jr. Ranger program in 1997. ZNHA provided 4 full time and 2 part time employees to this program, which operated 7 days per week and which reached nearly 2000 children. ZNHA

provided funds to the Outreach Program where instructors travel to local schools for their presentations. A Ranch Hand position was funded for the summer at Pipe Spring National Monument. ZNHA aided in their living history programs through the purchase of costumes as well as supplies for the livestock and gardens.

ZNHA continued to provide financial support to the planning of the new Zion Transportation System and Visitor Center in 1997, including a \$50,000 contribution to the town of Springdale for ISTE A matching funds.

The association supported scholarships to Dixie College and Southern Utah University, sponsored the Southern Utah Folklife Festival and continues to support the NPS resource management programs.

ZNHA printed 600,000 copies of the Zion Visitor Map and Guide, the newspaper-guide that is distributed to almost every arriving vehicle. ZNHA also printed many free site bulletins that are provided to visitors to enhance their enjoyment of Zion National Park.

#### Volunteer in Parks (VIP) and Student Conservation Association (SCA) Programs:

In 1997, 221 volunteers contributed a total of 17,768 hours of assistance to the park staff. The VIP budget for the year was \$6,500 for the very low cost of \$.37 per hour contributed. To pay for those services at the GS-5 rate would have cost about \$175,000—a gain to the nation of over \$168,000. These two volunteer programs continue to be valuable additions to park operations. They also play the strong role of giving prospective employees park experiences they would have difficulty achieving without these options.

#### Backcountry Fee:

In 1997, Zion, as part of the Fee Demo Program, began charging fees (\$5.00 per person per night) for backcountry permits. A backcountry permitting system was established, funded by Fee Demo money but coordinated by the Division of Interpretation, under the direction of Ranger Dave Rachlis. The backcountry permit operation was moved to a separate desk within the visitor center, and a staff of four (three seasonals and one SCA) permit writers was hired and trained in the proper procedure of issuing permits, charging fees, and learning backcountry resources. During the 1997 season, 3,038 permits were issued and about \$50,000 for the Fee Demo Program was generated.

# Superintendent's Annual Report

## Cedar Breaks National Monument

FY 1997

### *ADMINISTRATION AND MANAGEMENT*

#### *Administrative Headquarters Relocation and Upgrade*

The park's administrative headquarters office, which relocated to the Federal Building in Cedar City from the Kolob Canyons Visitor Center building in 1994, moved to a new location in June 1996. The park now shares a building in the Blackrock Commercial Center with other federal agencies. Although we are no longer co-located with the U.S.F.S., key park staff remain accessible to the various park constituents and remain involved in the decision-making processes regarding land management on the Dixie National Forest. The park has also provided office space for the Zion National Park hydrologist located in Cedar City who transferred here from the Water Resources Division in Ft. Collins in 1997.

In December 1997, the headquarters computer network was upgraded to Windows 95 on a Windows 3.11 network platform, and the Microsoft Office Suite software was installed to meet Servicewide requirements for conversion to new word processing software. Park access to the internet and DOI-Net was also provided via a frame relay connection to Denver.

#### *Personnel*

The number of encumbered permanent positions in the park during FY 1997 remained at three, as listed below. The permanent, subject-to-furlough WG-4749-07 Maintenance Worker position remained vacant through FY 1997. The duties of that position have been assumed by Maintenance Worker Mike Ward who is on a term appointment. Recruitment to fill the permanent position will occur in 1998. The seasonal staff for Visitor Services consisted of six park rangers (down from seven in 1996) and one volunteer Student Conservation Association Resource Assistant. A part-time volunteer campground host assisted visitors in the campground for part of the season. Volunteers contributed a total of 623 hours in FY 1997. The seasonal maintenance staff remained at three, but the structure of the maintenance crew changed to one WG-7 Maintenance Worker supervising one WG-5 Maintenance Worker and one WG-3 Laborer, instead of two WG-5 Maintenance Workers as in 1996.

Park staffing, as of September 30, 1997, was as follows:

Superintendent	GS-12	Thomas E. Henry
Administrative Technician	GS-07	Afton B. Taylor
Chief Park Ranger	GS-11	Steven M. Robinson
Maintenance Worker (Term)	WG-7	Mike Ward
Maintenance Worker (1040-hr)	WG-5	Larry D. McNeil
Laborer (1040-hr)	WG-3	Jerold J. Carpenter

Park Ranger (Lead) (1040-hr)	GS-5	George H. Guest
Park Ranger (1040-hr)	GS-4	Elizabeth L. Haury
Park Ranger (1040-hr)	GS-4	Kristin A. Bowling
Park Ranger (1040-hr)	GS-4	David J. Dobbmeyer
Park Ranger (1040-hr)	GS-4	Jessica L. Jordan
Park Ranger (1040-hr)	GS-4	Troy L. Hunt
SCA Resource Assistant	Volunteer	Stori Snyder
Campground Host	Volunteer	Anson Arnett

The total FTE expended in FY 1997 was 6.6; 3.0 was for permanent employees and 3.6 for temporary employees.

### Training

Various park staff attended training during FY 1997 to meet certification requirements in law enforcement, emergency medical services, "Standards for Survival" refresher fire training, and State water system operation. One seasonal park ranger was sent to the Interagency Fire School at Panguitch Lake for basic wildland fire (red card) training. In addition, the Chief Ranger attended Peer Counselor Training at Glen Canyon NRA to qualify him to assist other parks when needed for Critical Incident Stress Debriefings, and the Superintendent and Chief Ranger attended the satellite broadcast of "A New Perspective on Risk Management".

The park hosted and presented two training courses during the year. An 8-hour Winter Rescue Seminar was again held in the park and Brian Head, with participants from Iron County Sheriff's Department Search and Rescue Team, Iron County Ambulance/Brian Head Volunteer Fire Department, and Bryce Canyon National Park. The Annual 40-hour Seasonal Orientation and Training was presented to the entire park staff again this year, with participants from Zion National Park and the U.S. Forest Service assisting.

### External and Adjacent Lands Management Issues

Agencies, organizations, and individuals whose activities might impact park resources continued to be contacted during FY 1997 to foster support and cooperation and to provide some possibility of mitigation of the effects of adjacent land use on park resources. A number of meetings were held with officials of the Dixie National Forest on adjacent land use matters, especially those that will have a direct impact on the scenic vistas within the park. Brian Head Resort, Inc., a U.S.F.S. permittee, is going through a master planning process for its proposed expansion, to include several new ski runs and lifts over the next ten years. The park management team met with U.S.F.S. officials to discuss concerns over intrusions upon the scenic resources of the park. Likewise, the park has commented on the Spruce Ecosystem Recovery Project Draft Environmental Impact Statement and voiced our concerns over proposed salvage logging activities close to park boundaries or visible from within the park. Commercial logging activities, both on the Dixie National Forest and on private lands adjacent to the park, have increased dramatically over the past three years. Commercial log-hauling trucks continued to be prohibited on the Cedar Breaks Scenic Drive through the park. The use of commercial logging trucks on S.R. 143 through the northeast corner of the park was permitted in 1997 under the terms of a 1985 Memorandum of Agreement with the Utah Department of Transportation. A special use permit was issued to an adjacent landowner to allow the hauling of timber cut on his land over a service road within the park which provides the only access to that parcel of land.

The Superintendent served on the planning team for a Town Meeting conducted by the Colorado Plateau Forum that dealt with regional tourism issues.

### Government Performance and Results Act

The park came into compliance with the Government Performance and Results Act (GPRA) with the completion in 1997 of the park's Strategic Plan and FY 1998 Annual Performance Plan. After determining and reviewing proper goal statements, meaningful baseline information, condition assessments, and measurable performance indicators, the park staff developed a Strategic Plan that supports the established goals of the National Park Service and provides a means by which annual performance toward more efficient and effective park programs can be measured.

## *VISITOR SERVICES AND PROTECTION ACTIVITIES*

### Visitation

Visitation to Cedar Breaks National Monument in CY 1997 was 660,798, a 10.8% increase over 1996. Visitation to the park is heavily influenced by weather patterns, and dramatic fluctuations in annual visitation can be more the result of opening or closing the Cedar Breaks Scenic Drive earlier or later in the season because of snow than because of any regional trend in park visitation. In 1997, the park road was opened for the season on May 19 and closed on November 26. This is in contrast to 1996, when the road was opened on April 30 and closed on October 28. Mild weather in late October and most of November, 1997 resulted in continued heavy traffic through the park during the same reporting period in which the road was closed the previous year.

About 75% of the park's annual visitation continues to occur from June through October when all roads, trails, and facilities are open and most visitor services are available. Visitation can fluctuate even during the so-called "summer season" when storms come through dropping six inches or more of snow, as happened this year on June 15. The park remains "open" throughout the year and more and more visitors are experiencing the park in winter by making use of the groomed snowmobile trail on the unplowed Cedar Breaks Scenic Drive, and the marked cross-country ski trails. State Route 143 through the northeast corner of the park remains open to motor vehicles throughout the winter, except during and immediately after heavy snowstorms, under a snowplowing agreement with the Utah Department of Transportation.

### Interpretive Operations

The park's interpretive program reached larger numbers of visitors in 1997 than ever before. Although visitor center visitation showed a modest gain of 7% over 1996 to 58,488, the greatest increase occurred in attendance at formal interpretive talks. Almost 11,000 visitors attended a geology talk, porch talk, guided hikes, or evening campfire program during FY 1997, a 72% increase over 1996 figures. This is due mostly to an increase in the number of geology talks offered throughout the day. Roving assignments at popular overlooks, especially at the North View Overlook, were increased in 1997 to contact visitors who may otherwise not stop at the visitor center and who may not even be aware that they are visiting a unit of the National Park System. Overall, through informal contacts at the fee collection booth, visitor center, and trail roving assignments, and formal interpretive contacts, the number of visitors receiving personal

attention from a uniformed ranger increased by 10% over 1996. Information and orientation services in the visitor center continued to be provided in part through the assistance of Zion Natural History Association sales employees.

The park received 56,400 copies of the park brochure in FY 1997 to replenish the depleted park supply. Shipments are keeping pace with distribution, and the current supply should last through FY 1998.

Interpretive operations are covered in detail in the FY 1997 Annual Interpretive Program Report.

#### Fee Collection

Fee collection receipts for FY 1997 were \$78,821.48. This is an increase of 7% over receipts of FY 1996. Cedar Breaks National Monument was not among the pilot parks in the Fee Demonstration Project during 1997.

#### Cooperating Association

Sales at the Cedar Breaks outlet of the Zion Natural History Association in FY 1997 dropped 1% to \$64,006. The Association sales personnel worked 70 hours per week at the visitor center desk, a contribution valued at about \$7,300.

#### Emergency Services

The Case Incident Reporting System (CIRS) that was implemented in 1996 was continued in 1997. Only one work station is available for data entry and retrieval and it is located in the headquarters office, some 23 miles from where incidents are occurring in the park, so it was difficult and time-consuming to keep up with data entry without duplicating efforts between the park and headquarters. Eventually, all incidents are entered into the CIRS database each year. With the upgraded computer network and more available hardware, it is expected that in 1998 a remote station will be set up at the park with modem access for downloading data to headquarters.

The number of recorded incidents related to law enforcement, emergency medical services, and/or search and rescue has risen slightly, but steadily over the last few years and is up again to 74 in 1997 from 61 in 1996. Sixteen citations were issued (14 in 1996), primarily for traffic offenses. Resource violations for which citations, written or verbal warnings were issued, as in the past, involved off-road travel (parking or driving on meadows), feeding wildlife, picking wildflowers or gathering firewood, and pet-related violations.

One deer was poached in the park toward the end of the General Deer Hunt this year. The animal was shot just inside the park's south entrance and then left to lie in a meadow until it was discovered some twelve hours later. Two incidents of vandalism or theft of government signs occurred, and one incident of disorderly conduct.

Only three EMS cases occurred requiring either minor first aid or basic life support. Five incidents occurred involving assistance to other agencies, four of which involved responses to motor vehicle accidents outside the park during which park personnel provided medical care or traffic control. One request for assistance came from the Iron County Sheriff's Department's Search and Rescue

Team in which park personnel searched for an overdue snowmobiler both inside and outside the park. The missing person was eventually found outside the park.

The Chief Park Ranger remained the only law enforcement commissioned ranger in the park in 1997. The park once again recruited for a seasonal law enforcement ranger and a good certificate of eligible applicants was received. However, we were under the mistaken impression that the low- or no-cost Limited Background Investigation (LBI) equivalents conducted in-house by NPS criminal investigators would meet the requirements for background investigations for Level II law enforcement commissions. Instead, we were informed that eventually all prospective seasonal law enforcement rangers must also undergo a complete LBI by OPM at the park's expense of over \$1,800. This unanticipated and unprogrammed expense forced us to reconsider the hiring of a law enforcement ranger and an additional interpretive ranger was hired, instead.

### Safety

No employee or serious visitor injuries were recorded in 1997. Three visitor motor vehicle accidents were recorded, including two roll-over accidents with no injuries.

## *RESOURCES MANAGEMENT*

### Natural Resources

The winter snowpack for 1996-97 was close to average. Heavy snowfall (enough to close the park road) started with the beginning of the water year in October 1996 and remained at about average levels through the spring of 1997. Early summer remained fairly warm and dry, and the afternoon and evening thunderstorms normally expected in July did not come until August and September. The wildflower display was brief, but colorful. The fall foliage display was outstanding and the park remained busy through a mild October and most of November.

Resource management work centered on monitoring the increasing Englemann spruce mortality from the spruce bark beetle, especially in the northern half of the park where it is estimated that 50 to 80% mortality has occurred. The park has been working closely with the U.S.F.S. since the epidemic began in 1993 with monitoring activities and in determining appropriate steps to mitigate the impact of the epidemic within the park. The park treated about 200 mature spruce trees in the campground in 1996 with Carbaryl 4L to protect these high value trees during the following beetle flight from adjacent infested areas. Since the spruce bark beetle has a two-year life cycle, the next treatment will be done in 1998. According to the U.S.F.S. survey, the outbreak hit a new high in 1997, with a general expansion into the remaining live host occurring. Mortality had expanded in all directions from the Sidney Valley area, just northeast of the park, and continues to push into the park. It is predicted that mortality totals will probably decrease next year because most of the spruce stands have already seen from 50 to 80% mortality.

The Superintendent worked with the Water Resources Division in Ft. Collins in 1997 to initiate the water rights adjudication process with the State of Utah.

With the assistance of the Zion National Park Division of Research and Resource Management, a limited survey of non-native plants in the park was accomplished using small park NRPP funds. Additional ecological monitoring of insects, prey species, migratory birds (Project Tanager



Survey), and bats was conducted in the park in conjunction with the Brian Head Field Ecology Class. This week-long course on ecological monitoring techniques is for high school science teachers from throughout Utah and is conducted by Southern Utah University with assistance from the U.S.F.S., Utah Division of Wildlife, and N.P.S.. Work also began on a joint research project with the U.S.F.S. involving tall forbs to study the reestablishment of original plant communities on grazed areas adjacent to the park.

### Cultural Resources

1997 was the second full year of a four-year project by the Zion National Park Research and Resource Management Division to complete an intensive archeological survey of 100% of the lands within Cedar Breaks National Monument on which archeological resources are likely to be found. In 1996, about 825 acres of the interior of the geologic amphitheater was surveyed, along with about 200 acres on the rim. One site was found within the park in the lower breaks, and three related sites on U.S.F.S. lands were also recorded. Also in 1996, three sites were recorded within the park on the rim, one of which is an extremely large prehistoric quarry that extends onto U.S.F.S. lands. In 1997, 1,168 acres were surveyed on the rim, resulting in 93 additional sites identified and recorded. Although these sites have yet to be fully evaluated, most of them are associated with the prehistoric procurement of local Brian Head chert sources during the Late and Middle Archaic periods, though Late Prehistoric and historic utilization was also documented. Of special significance was one site containing more than 20 prehistoric ceramic sherds, which were unexpected in this high altitude setting. Future analysis of these sherds will determine whether these artifacts indicate Fremont or Virgin Anasazi utilization of the area. Associated studies of prehistoric pollen and dendroclimatic reconstruction analyses were also initiated during the 1997 field season.

Funding was secured through 20% Fee Demo money for the partial rehabilitation of the historic visitor center, following the evaluation by Regional Historic Architect Sayre Hutchison. The project, to be completed in 1998, will include reroofing the building and the installation of a lightning protection system.

The curator for Cedar Breaks, based in Zion National Park, updated our curatorial records in 1997, making corrections where needed and adding over 200 catalog numbers from the archeological survey. The FY 1997 Collections Management Report was also completed.

## *FACILITIES MANAGEMENT*

### Buildings and Utilities

Work began early in the season amidst the deep snows of late April on the reconstruction of the roof of the campground comfort station. The park maintenance crew redesigned and built a pitched roof covered with metal roofing sheets to replace the existing flat roof. The finished product is an attractive improvement to the facility that strengthens the structure and will shed snow more readily.

An interior rehab of the ranger/fee office building was also completed by the maintenance crew that included re-paneling the ranger office and re-carpeting the entire building. The project was well done and turned what had been a rather dismal office into a much more attractive work

environment. A covered "porch" was added to the entryway of the ranger/fee office building to reduce the hazards of shedding snow and freezing run-off from the roof, and to simplify the addition of winterizing panels to the entry. Shutters were also added to the building to simplify winterizing.

The culinary water supplies from the park's springs were again adequate for our needs in FY 1997. All required chemical tests were completed and all samples sent in for bacterial analysis were satisfactory. The contract to sandblast, re-coat the interior, and repaint the exterior of the small water storage tank was completed in 1996.

In addition to routine custodial care of public facilities, many signs were rehabbed, the visitor center comfort station exterior was repainted, the campground comfort station interior tile and grout was painstakingly cleaned, and repainting began on the exterior of the visitor center.

#### Roads and Trails

The Zion National Park Division of Facility Management (Roads and Trails) completed a chipseal project of the entire Cedar Breaks Scenic Drive (approx. 5 miles) and all parking areas, paved service roads, and the campground loop in 1997. This work was completed out of necessity during the busiest time of the year in July, but the Zion crew was able to complete the job quickly with as little inconvenience to park visitors as possible. The Cedar Breaks staff feels fortunate to enjoy such a strong and effective working relationship as we have with the Zion maintenance staff.