

SUPERINTENDENT'S ANNUAL REPORT
ZION NATIONAL PARK
1982

ADMINISTRATION AND MANAGEMENT

During 1982, 1,361,750 visitors toured Zion National Park. This represented a 3.1 percent decrease from the record number of visitors in 1981. Camp-ground use for 1982 totaled 198,998, a 4.1 percent decrease compared to 1981.

Backcountry camping decreased 35 percent compared to 1981. This was partially due to changing the way backcountry camping was figured. A basic accounting error had caused some inflation of figures in the past.

Tour buses delivered 31,000 visitors to the visitor center, a 13.8 percent decrease from 1981. International visitors continue to represent just under 20 percent of the total annual visitation.

Special Visitors

Zion had the following special visitors during the year:

- | | |
|---------------------|---|
| March 1 | Grandson of William Heap |
| March 7 | Mrs. Ruth Grant, Supervisor, Training Institute for Parks, Countryside Commission for Scotland |
| April 6 | Mr. Jens Heilmann, Denmark, Recreation Planner/Consultant for Council of Europe |
| May 4 | Mr. Glen Bean, former NPS Rocky Mountain Regional Director |
| May 6 | Dr. Charles Prescott, Department of Veterinary Medicine, University of Queensland at St. Lucia, Brisbane |
| May 10 | Mr. Kevin McCullen, reporter for Associated Press (interviewed CPN Jackson) |
| May 13 | Mr. Howard Rigrup, Executive Assistant to Congressman Hansen (First Congressional District) |
| May 14
& Nov. 15 | Ms. Terri Martin, Utah Representative, National Parks & Conservation Association |
| May 16 | Ms. Peggy Strain, former environmental writer for <u>Denver Post</u> and member of U.S. Representative Pat Schroeder's (Colorado) staff |
| May 29 | Mr. Ola Troing, Danish writer and film producer, accompanied by Alicia Bremer-Davis of the Utah Travel Council |

- June 7 Mr. John Arnott, Commissioner, Countryside Commission for Scotland
- June 21 Mr. and Mrs. (Marian) Roswell Schenck, son-in-law and daughter of former NPS Director Horace M. Albright
- July 6 Mr. Henry S. Francis, Jr., Executive Director, Student Conservation Association, Inc.
- July 20 Mr. Jay Clark, Travel Editor, Miami Herald
- Sept. 2 A group of America's Freedom Ride Bikers were welcomed at the entrance to Zion during their tour of the 50 states to commemorate the 200th anniversary of the United States Constitution.
- Sept. 13 Mr. Russell D. Butcher, Southwest Regional Representative, National Parks & Conservation Association
& Oct. 8
& Nov. 15
- Oct. 8 Mr. Richard Adler, Broadway composer of "Wilderness Suite" (recently completed for the NPS)
- Oct. 12 Mr. Tom Wilson (and wife), retired Public Affairs Office employee, Department of the Interior, WASO
- Nov. 1 Mr. Rod Holmes (and wife and children), National Parks and Wildlife Service, Tibooburra District, New South Wales
- Nov. 15 Congressman John Seiberling (Ohio) of the House Subcommittee on Public Lands and National Parks and Howard Nielson (Utah), along with administrative aides of the rest of the Utah delegation, visited the park while on a fact-finding trip to southern Utah to look at nuclear waste dump sites, tar sands, coal fields and possible wilderness area proposals. Rocky Mountain Regional Director Lorraine Mintzmyer and Utah State NPS Director Don Gillespie, as well as Utah BLM and Forest Service officials, joined them at Zion.

Development Concept Plan

Comments from the public were solicited on the final Development Concept Plan for Zion Canyon, and a Statement of Requirements for a new concession contract for 1983 addressed the selected alternative of building 80 new units at the lodge to replace 88 of the old Frontier cabins, remodeling the 40 deluxe (Western) cabins, and upgrading other facilities and transportation system.

Town of Springdale

Mayor Robert Ralston and Town Council members have been investigating other alternatives of developing culinary water outside the park boundary rather than further impacting park resources. Serious attempts are also being pursued to develop a fire protection district/ambulance service for the area. The current town administration is very cooperative and recognizes the park's limitations under tight funding constraints. Initial meetings have been held on making improvements to the irrigation system that originates in the park.

Town of Virgin

Virgin is again seeking means to improve its culinary water supply/system. The National Park Service supported the alternative of seeking grant money through the Five County Association of Governments to improve a system that would be located downstream from Grapevine Spring and outside the park boundary.

Evaluation Teams

A five-member Management Operations Evaluation Team visited the three parks of Zion, Pipe Spring and Cedar Breaks May 9 through 14.

A four-member Personnel Management Evaluation Team visited the three parks July 26 through 30 and October 26 through 28.

Kolob Canyons Development

A major decision was made this year to accept the offer of the Zion Natural History Association to build and donate a small contact facility at the I-15 interchange located 16 miles south of Cedar City. The decision was made after favorable reaction of local governments, agencies and organizations toward relocating National Park Service staff from offices in the Federal Building in Cedar City to the new location. Planning is continuing into 1983, with the hope that construction will begin by summer.

Personnel

Staffing of permanent employees at the close of the year for the three areas was as follows:

	<u>ZION</u>	<u>CEBR</u>	<u>PISP</u>
Full-time	27	3	3
Less-than-full-time	12	1	0
Part-time	<u>1</u>	<u>0</u>	<u>0</u>
TOTAL	40	4	3

There were no vacancies at Zion or Cedar Breaks at the end of the year. One vacancy did exist at Pipe Spring. The Park Technician (Typing) position is being reclassified to an Administrative Clerk position, and recruitment will take place in early 1983.

No retirements occurred during the year; however, there was one resignation: Nora M. Heaton from the Park Technician (Typing) position at Pipe Spring.

Seasonal staffing at Zion totaled 36 which included four summer aids. One temporary clerk-typist is on a one-year temporary appointment. Cedar Breaks had six seasonal employees and Pipe Spring had five. These figures do not include VIP, SCA, YCC or other such programs.

During the year, 160 requests for personnel actions were initiated at the park level for the three areas.

Reassignments/Transfers

John Conoboy, Park Ranger, CEER (from Mt. Rainier NP, WA), 04/04/82
 Afton B. Taylor, Administrative Clerk, CEER (from Capitol Reef NP, UT),
 04/04/82
 Robert (Bob) G. Lineback, Park Technician, Zion (from Ft. Laramie NHS, WY),
 05/30/82
 Penny L. Knuckles, Park Technician (Typing), Zion (from OPM Register, Denver),
 10/12/82
 Freida L. Gratz, Purchasing Agent, Zion (from Cape Hatteras NS, NC), 10/31/82
 Cindy S. Craig, Park Technician (Typing), Zion (to Natchez Trace Parkway, MS),
 05/02/82
 Maurine Cundick, Purchasing Agent, Zion (to Capitol Reef NP, UT), 07/12/82

In June 1982, Zion was saddened by the death of Robert B. McComb, long-time seasonal employee, following a long illness.

Training

Training opportunities were afforded to several employees during the year, including the following:

<u>Name</u>	<u>Course Title</u>	<u>Date</u>
BALLARD, Jeffery (Z)	Explosive Handling	01/82
BODEMER, Lawrence (Z)	Explosive Handling	01/82
DEWITZ, C. Douglas (P)	Water-Waste Water Operations	02/82
CUNDICK, Maurine (Z)	Cost and Price Analysis	02/82
ARMSTRONG, Kenneth (Z)	Basic Law Enforcement for Land Management Agencies	02/82
SHAKESPEAR, LaMar (Z)	Roads Maintenance	03/82
CROCKER, Levi (Z)	Cost and Price Analysis/Contract Law	03/82
CUNDICK, Maurine (Z)	Government Contract Negotiations	03/82

<u>Name</u>	<u>Course Title</u>	<u>Date</u>
RANDALL, Lee (Z)	Financial Management	03/82
FESLER, Patricia (Z)	Introduction to Park Program Management	04/82
OTT, Faye (Z)	Introduction to Park Program Management	04/82
BANKS, Fred (P)	Introduction to Park Program Management	04/82
HEEBNER, Belinda (Z)	Personnel Staffing Workshop	04/82
CROCKER, Levi (Z)	Contract Administration	04/82
JACKSON, Victor (Z)	Cross-Cultural Interpretation	04/82
RANDALL, Lee (Z)	Culinary Institute	04/82
DICK, Jon (Z)	Managing Emergency Operations	05/82
DEWITZ, C. Douglas (P)	Water-Waste Water Operations	05/82
CUNDICK, Maurine (Z)	Contract Law	06/82
DAVIS, Marilyn (Z)	Federal Women's Program Workshop	06/82
HEEBNER, Belinda (Z)	Compensation Specialist Workshop	08/82
GRAFE, Harold L. (Z)	Departmental EEO	09/82
HEEBNER, Belinda (Z)	Pre-Retirement Counseling	09/82
SORENSEN, LaMaun (Z)	Trail Design and Construction	10/82
ZELONES, Raymond (Z)	Trail Design and Construction	10/82
BANKS, Fred (P)	Introduction to Supervision	10/82
DEWITZ, C. Douglas (P)	Introduction to Supervision	10/82
LINEBACK, Robert (Z)	Ranger Skills	11/82
BALLARD, Jeffery (Z)	Basic EEO Counseling	11/82
FESLER, Patricia (Z)	Datapoint Users Workshop	12/82

FPM Supplement 296-33 (Processing Personnel Actions) training was hosted at Zion the second week in February. Marilyn Davis and Belinda Heebner attended from Zion, along with employees from Glen Canyon, Bryce Canyon and Capitol Reef National Parks. Two employees from the Branch of Employment in the Regional Office presented the two-day training.

In August, Zion hosted Driver Examiner training which qualified employees from Zion, Cedar Breaks, Pipe Spring and Bryce Canyon to examine and issue Government Motor Vehicle Operator's Identification Cards to employees needing them. Employees attending from our three areas were Marilyn Davis (Z), Kenneth Armstrong (Z), Robert Lineback (Z), John Conoboy (C), Afton Taylor (C) and C. Douglas Dewitz (P).

Throughout the year, the Ranger Division sponsored a wide variety of training sessions in the park which included the following:

February - Fire Ladder training was presented to six employees.

April - Seven employees received 16 hours of training in range, search and seizure and stakeouts.

Forty hours of annual Law Enforcement training were completed in April by our two seasonal law enforcement rangers.

April and May - Thirty-two hours of Basic Fire Fighting and Introduction to Fire Behavior were presented to ten seasonal and four permanent employees.

July - A four and one-half hour Technical Rescue training session was attended by four employees.

A four and one-half hour training session covering litter rigging, raising and lowering systems, belaying, mini-winch and safety was presented to eleven Zion employees and three local area residents.

September - Larry Florea attended 16 hours of Accident Investigation training in St. George presented by the Utah Highway Patrol.

October - Larry Florea presented eight hours of Accident Investigation training to four Zion employees. Emphasis was on evaluating and utilizing physical evidence at the scene.

November - Seven employees attended eight hours of Firearms training and 16 hours of classroom training given by the FBI. The subjects covered were detention and arrest, defensive tactics and crime scene management.

Seven structural fire members were given two hours of Fire Pumper training.

December - Five employees received one and one-half hours of instruction on the fire truck with emphasis on drafting.

Employee Relations

The EO Committee at the end of the year consisted of the following:

Chairman: Clay Alderson, Superintendent, Cedar Breaks

Members: Robert Wood, Interpretive Division, Zion
Kenneth Armstrong, Ranger Division, Zion

Counselors: Jeffery Ballard, Maintenance Division, Zion
Freida Gratz, Administrative Division, Zion

FWPC: Marilyn Davis, Administrative Division, Zion

EO Designee: Belinda Heebner, Personnel Assistant, Zion

Recruiting efforts were made this year by Belinda Heebner, Roy Given, John Conoboy and Fred Banks in an endeavor to reach more minorities/women and make them aware of seasonal employment opportunities in the National Park Service. Students at Dixie College and Southern Utah State College as well as young people on the Kaibab-Paiute Indian Reservation at Moccasin, Arizona, were contacted.

During National High Blood Pressure Month (May), two members of the Public Health Department in St. George presented a Hypertension Clinic for Zion employees and their spouses. Individual blood pressure readings were given to 39 employees and six spouses.

In November, a Federal Women's Program Workshop was held in the Zion Nature Center. Employees from three national parks and two national monuments were invited to attend, and 20 people participated. The workshop included speakers from Dixie College and Southern Utah State College discussing stress and women in management. National Park Service speakers talked on Social Security, federal retirement and upward mobility. The film "Pack Your Own Chute" was shown. In spite of a snowstorm and travelers advisory warning, women came from all areas, proving their interest in the Federal Women's Program.

During open season for health insurance, seven employees from the three areas changed their coverage.

Awards

Employees receiving length-of-service pins during the year were Kenneth Armstrong, Richard Batt (CEBR), Jon Dick, Faye Ott, and Raymond Zelones (all 10 years) and Doyle Winder (20 years).

A special achievement award with check was presented to seasonal employee John Ethridge.

Victor L. Jackson, Chief Park Naturalist at Zion, was presented the first Freeman Tilden Award and a check for \$2,500 as the NPCA/NPS Outstanding Interpreter of the Year. The award is to be presented annually by the National Parks and Conservation Association.

Suggestion awards were received by Richard Fesler and Mark Richey, both of the Maintenance Division, Zion.

Budget and Finance

In an effort to repair and stabilize deteriorating facilities in the parks, Congress established the Park Restoration and Improvement Program (PRIP). This program provides funds to the maintenance activity to repair physical facilities. During 1982, Zion had 13 projects totaling \$470,382. The ONPS budget was \$1,222,100; this amount did not allow programs to operate at the desired level. The PRIP program is a positive approach to restoring the system's facilities; however, additional funding is needed for overall operational support.

In addition to ONPS and PRIP, Zion's budget authority included \$77,000 in reimbursables and \$3,500 for air quality, making a total of \$1,777,935.

Cedar Breaks' budget allotment was \$135,000 ONPS, \$71,000 PRIP and \$3,000 reimbursables for a total of \$209,000.

Pipe Spring's budget allotment was \$133,500 ONPS, \$34,600 PRIP and \$6,100 in reimbursables for a total of \$174,200.

A tremendous staff effort went into formulating our requests for FY-84 through a new process that has become known as "Basic Operations."

Contracting

The following contracts were issued in the 1982 fiscal year:

CX 1200-1-B041 to Utah Department of Transportation of Cedar City, Utah, to deliver hot mix overlays to Cedar Breaks National Monument--\$65,000.00 (construction contract).

CX 1200-2-B062 to Ivo C. Archuleta Concrete Contractors to rebuild switchbacks retaining walls below the tunnel--\$162,341.97 (8(a) construction contract).

CX 1590-2-0001 to Ideal Waste Systems, Inc., of St. George, Utah, for collection and disposal of refuse--\$11,255.04 (service contract).

CX 1590-2-0002 to Beaver Builders, St. George, Utah, to supply and install 78 fireproof doors--\$11,390.70 (construction contract).

CX 1590-2-0003 to Arizona Refining Company of Phoenix, Arizona, for asphalt CRS-2 emulsion--\$17,692.80 (supply contract).

CX 1590-2-0004 to Ron Beatty Construction, Hurricane, Utah, to lay six-inch water main and install fire hydrant at Pipe Spring National Monument--\$14,436.97 (construction contract).

CX 1590-2-0005 to Twamco Trailer Company, Inc., Todd Welding and Machine Company, Salt Lake City, Utah, for tilt bed trailer, 18 ton capacity--\$10,988.50 (supply contract).

PX 1590-2-0108 to Seven Trees Company, Spanish Fork, Utah, to prune and remove hazardous limbs and trees in Zion National Park--\$4,496.25 (service contract).

Procurement

During the 1982 fiscal year, the imprest fund for Zion was increased to \$2,500 and the fund for Pipe Spring was increased to \$750. The imprest fund for Cedar Breaks remained the same at \$300.

<u>Area</u>	<u>Imprest Vouchers</u>	<u>Total</u>
Zion National Park	468	\$27,535.80
Cedar Breaks National Monument	88	2,217.76
Pipe Spring National Monument	234	10,498.49

<u>Area</u>	<u>Purchase Orders</u>	<u>Total</u>
Zion National Park	239	\$259,058.56
Cedar Breaks National Monument	22	30,897.31
Pipe Spring National Monument	24	10,203.36

<u>Area</u>	<u>Fedstrip Activity</u>	<u>Total</u>
Zion National Park	18	\$14,782.62
Cedar Breaks National Monument	3	2,655.82
Pipe Spring National Monument	2	101.36

Property Management

The following property transactions were completed during the year:

Report of Personal Property for Sale - 9

These included saws, calculators, wood burning stoves, cameras, cash registers and motor graders.

Report of Excess Personal Property - 11

These included baseboard heaters, cameras, floor scrubber, lens, house trailer, stairs and cash registers.

Reports of Survey - 6

These included a horse, refrigerators and oxygen masks.

Concessions

Concessions Management Specialist Randall was on a temporary work assignment at the Rocky Mountain Regional Concessions Office January 4 through March 13.

Zion Natural History Association

A new five-year Concession Permit was issued to the Zion Natural History Association, and operational and maintenance agreement plans were completed.

Three operational inspections and three follow-up inspections were conducted during the calendar year, and several onsite inspections were completed by the Concessions Management Office.

One safety inspection was completed by the Rocky Mountain Regional Safety Officer.

No complaints were received during the operating year, indicating that the Zion Natural History Association served the public at a highly acceptable level.

Bryce-Zion Trail Rides, Inc.

New operational and maintenance agreement plans were completed for Bryce-Zion Trail Rides' operation at Zion National Park.

During the operational year, all buildings and corrals owned by the concessioner were repainted. The Sand Bench horse trail was completely reconstructed, and the driveway and parking area at the employee housing area were blacktopped with asphalt.

One pre-opening inspection, one Public Health inspection, three operational and three follow-up inspections were conducted during the operating year.

One safety inspection was conducted by Rocky Mountain Regional Safety Officer Dempsey.

Concession employee training was conducted by the Concessions Management Office.

Only three complaints, all of a minor nature, were received during the operating year, indicating that the concessioner was operating at a highly satisfactory level.

TWA Services, Inc.

TWA Services' concession contract expired December 31, 1982. During the calendar year, the Statement of Requirements (SOR) for a new concession contract was completed and submitted to the Rocky Mountain Regional Office in June.

A complete operational manual for TWA Services' concession operation was completed by the Concessions Management Office.

New operational and maintenance agreement plans for TWA Services' operation were completed prior to opening.

One pre-opening inspection, three Public Health inspections, three operational and three follow-up inspections were conducted during the operating year.

One safety inspection was conducted by the Rocky Mountain Regional Safety Officer.

New fire doors were installed in employee dorms, the lodge and snack bar areas. Emergency lighting was rewired to comply with safety and fire codes. Two Western cabins were completely rehabilitated to NPS standards as a prototype for the remaining Western units. Several operational improvements were made during the operating year.

A minimum number of complaints were received during the operating year, indicating that the concession operation continued to serve the public at a highly acceptable level and was sensitive to the needs of the visitors.

INTERPRETATION AND RESOURCE MANAGEMENT

Resume of Interpretive Operations

Regularly scheduled interpretive programs began on March 21 with one guided walk and one evening program offered daily. March visitation was 42,670, a 9 percent increase over the previous year. Spring break at numerous educational facilities during mid-March and large crowds at Easter in early April inundate our miniscule staff each year. It is only through auxiliary staffing provided through the Association and our active VIP program that we are able to take care of the crowds in a fairly respectable manner.

The opening of the Zion Nature Center on June 7 marked the beginning of our maximum program for the summer which lasted until August 6. The three Student Conservation Association women assigned to the division were terminated by August 21, leaving us with limited staff and many visitors still descending on the park. Nonetheless, we carried out a viable program until November 6, with the last two weeks being made possible only through our VIPs.

We continue to keep the visitor center open daily all year with maximum hours from 8 a.m. to 9 p.m. in summer and minimum hours of 9 a.m. to 5 p.m. in winter. During spring and fall months, we are open from 8 a.m. to 6 or 7 p.m. as staffing permits. In this way, we provide visitor services during most of the daylight hours of the year. This facility is now operated nearly 70 percent of the time by non-NPS employees!

A summary follows of participation in scheduled interpretive events:

	<u>1981</u>	<u>1982</u>	<u>% Change</u>
Roving interpretive contacts	6,831	3,266	- 52.2
Naturalist Choice talks	1,297	4,425	+241.2
Conducted walks and hikes	16,376	16,738	+ 2.2
Evening programs	62,613	64,025	+ 2.3
Visitor center attendance	<u>532,824</u>	<u>562,984</u>	<u>+ 5.7</u>
	619,941	651,438	+ 5.1

It should be noted that much of the overall increases can directly be linked to the availability of 21 interpretive VIPs, especially a spring VIP who donated 424 hours and two VIP/Park Interns who contributed 758 interpretive hours between them in the fall. Without the VIP and SCA programs, the number of interpretive activities available to visitors would be drastically reduced.

Tour buses delivered a significant percentage of the visitors in the visitor center during the spring and fall months; many others arrived during the summer, but the overall percentage of visitation was much lower. The visitor center recorded 999 buses with 31,650 passengers--11.9 percent below the 1981 total of 35,926.

Interpretive employees issued 4,799 Golden Age Passports, 112 Golden Access Passports, 1,524 overnight camping permits and 1,080 Narrows permits in cooperation with the Ranger Division.

A voluminous document entitled "Statement for Interpretation" was completed, with much of the credit going to Assistant Chief Naturalist Roy Given.

Chief Naturalist Jackson attended the Regional Interpreters' Conference held at Yellowstone in September. He and Roy Given both attended the Biennial Cooperating Associations Conference held in St. Louis in October.

Environmental Education Program

The ninth season of the Zion Nature Center began on June 7 and ended at noon on August 6. Attendance was 1,020, a drop of 40 children from the previous year. We continued with the age group of 6 through 12, as it coincides very well with a child's natural interest in the outdoors and all that is related to it. Each afternoon a seasonal naturalist would present a demonstration talk on a variety of subjects using rock samples, bird study skins and preserved reptiles.

Recruiting teachers was more difficult this year as we did not have the assistance of Southern Utah State College in advertising the Nature Center program. Ms. Tanya Reck, Mr. Lynn Chamberlain and Ms. Shillene De Mille were the teachers. The new teachers received five days of training and orientation before the Nature Center opened. The teachers work a seven-hour day, five-day week and are paid from the Environmental Education account of the Zion Natural History Association. Total costs for this year's program were \$5,594, of which \$4,647 was for salaries and \$947 for supplies.

Park maintenance is installing new insulation and siding on the Nature Center building, which is partially funded by the Association. The kitchen has been completely remodeled, and we are looking forward to being able to use it as a projection room once the windows can be darkened.

On August 6, a program critique was held at the Nature Center with the three teachers, Superintendent Grafe and Chief Naturalist Jackson present.

Cooperating Association Activities

This past year has been one of great service to Zion visitors and the National Park Service, as it strives to meet increasing needs with diminishing financial and human resources. Aid to the National Park Service increased to \$90,549, the highest on record, even though gross sales dropped 1 percent from the previous year to \$373,702.

The Kolob Canyons contact station has been approved by all levels of required authority so that the Association can move into the construction of this needed facility. Its completion will improve the management of the area as well as meet numerous needs of the traveling public for information on Zion and surrounding attractions.

Personnel

It was at the Association Annual Meeting in November that Business Manager/Treasurer Joel Fishbein was promoted to the equivalent of a GS-8 and Secretary/Sales Clerk Marion Hilkey was authorized a pay scale equal to a GS-5. During the fall, we lost two experienced employees with the resignations of Christine Dick and Caroline Nicholson. Most of the 16 employees hired by the Association worked as part-time sales clerks, but there were also the three Nature Center teachers.

Publications

Views of Cedar Breaks by Beth Gilchrist was completed during the year and is designated a Golden Anniversary edition in commemoration of the 50 years of monument status for Cedar Breaks.

The popular French and German translations of the Zion park folder were reprinted for free distribution. Other titles reprinted were Guide to the Trails by Roland Wauer, This Is Zion by Allen Hagood, Canyon Overlook Trail Guide by Williams and Scott, Weeping Rock Trail Guide by Lund and Smith, a revised edition of "Checklist of Birds" by Gifford and Tweit, "Topographic Map of Zion National Park, Utah," revised and produced by the Williams and Heintz Map Company, and the popular color poster "Great White Throne" by Allen Hagood.

Service Related Operations

Aid to Interpretation remains the major recipient of Association funding and totaled \$30,043 for the fiscal year.

The sum of \$14,956 was expended in the Aid to Environmental Education account. Of this amount \$5,594 was spent on the Zion Nature Center program and \$996 on our continuing science scholarship programs at Dixie and Southern Utah State Colleges.

The Aid to Museum account provided \$1,613 for a tapestry entitled "Beehive Streaked Wall," taxidermy fees for mounting road-killed specimens and projects at Pipe Spring.

The Aid to Library account expenditure of \$2,071 permits the libraries at Zion, Pipe Spring and Cedar Breaks to be kept current with pertinent publications and magazines as they become available.

Various types of research moved forward with a total payment of \$23,793.

Hall Brothers Construction Company of Hurricane, Utah, built a storage room for Association publications adjacent to the visitor center. This cost of \$8,855 was charged to the Equipment and Other Donations category.

Plans for 1983

The chairman of the Southern Utah Folklife Festival Advisory Board requested a donation of \$6,000 for the 1983 event, which was approved by the Board of Directors at the recent annual meeting.

The Association has allocated \$77,436 for the planning and construction of the Kolob Canyons contact station that is currently under way. Additional funds can be made available if necessary through the delay of budgeted new publications.

Other items are \$2,000 provided to assist our very active VIP program, \$4,000 to aid the Pipe Spring living history activities, \$2,000 to reprint the popular German and French park folders, \$2,400 to continue the Weatherbank, Inc., forecasting service and \$500 for special costs arising out of the celebration of Cedar Breaks' Golden Anniversary during 1983.

Law Enforcement

There were 530 case incident reports for 1982 including all classes of incidents within the reporting system. This is an increase of 10 percent from 1981.

There were 33 motor vehicle accidents, an increase of 50 percent over 1981.

There were 32 larcenies within the park, 19 of them involving vehicle burglary. The total value of property stolen was \$22,950 with \$2,593 recovered. One reported larceny was unfounded.

On July 18, 1982, two individuals were arrested for theft of a battery from a visitor's vehicle. They were extradited to Nevada on outstanding felony and parole violations.

On December 17, 1982, two vehicles were burglarized at Weeping Rock Parking Area. Approximately \$2,500 of property was stolen. A physical description of the individual and vehicle was obtained from witnesses. The individual was apprehended in Cedar City, Utah, after a high-speed chase. All property was recovered and returned to the owners. The individual was extradited to Arizona on outstanding felony charges and may be returned to Utah later for trial on felony charges originating from this incident.

There were 12 arrests related to intoxication. Seven of them were for driving under the influence. Three arrests involved public intoxication, and two were for disorderly conduct resulting from drinking.

Washington County has a new jail which is federally approved. A good working relationship has been maintained with the county throughout the year, and we have access to all capabilities of the new facility. Serious offenses are prosecuted through the county legal system.

There were 148 violation notices issued during the year, an increase of 90 percent over 1981. There were 81 notices issued for hazardous traffic violations and 67 notices issued for other violations. During the hunting season, one hunter was issued a Federal violation notice for possession of a loaded firearm. Hunting pressure near the boundary appeared moderate.

Livestock trespass was a continuous problem this season from June through late September. Approximately eight miles of fence were maintained in heavy-use livestock grazing areas, which helped control some trespass.

Professional thieves traveling from park to park remain a serious problem. They were responsible for the bulk of property crime in 1982. Stakeout teams were utilized during the summer. Although no professional was caught here, it was apparent that on at least two occasions enforcement efforts prevented crimes from occurring.

Meetings were held with county commissioners, sheriffs, a State Senator and State Representative on proposed concurrent jurisdiction legislation for areas of the National Park Service in Utah with the hope of passage in 1983.

Fish and Wildlife Management

The peregrine falcons in the upper portion of the canyon moved their nest location again this year. It was located and monitored during the summer. Only one young was fledged this year from that site. All three birds were monitored until about the middle of October. This is the latest that peregrines have been observed in the park. In mid-August, a second pair of peregrine falcons was found in the lower portion of the canyon. They also had one fledgling. Both pairs were seen in their respective locations at the same time. The pair in the lower canyon was not located until after the young had fledged so no nest site was found.

Fourteen observations of desert bighorn sheep were recorded this year, ranging from lone individuals to groups of as many as six. Most of the sheep seen did not have collars on. Several observers reported seeing yearlings, but no lambs have been seen. One ewe carcass was found above the Springdale layer south of Sammy's Canyon. The apparent cause of death was sinusitis.

Bell's vireo was located between the lodge and the grotto, but no nest or young were located.

The Zion deer herd seems to be stable. Numbers remain low, and deer in Zion Canyon appeared in poor condition during the summer months. Staff assisted Utah Division of Wildlife Resources personnel in obtaining blood samples from park deer. Test results were negative. The summer heat combined with the fact that many does were still lactating late into the summer probably accounts for their overall appearance.

Resource Management

The air visibility station in Zion Canyon has been operating now for three years. The tape transport motor of the Memodyne data logger failed, so no data has been stored on tape for awhile. Readings from the telephotometer and meteorology gear have been taken manually once a day. The Memodyne should be back in operation sometime in January.

EPA excessed the Lava Point telephotometer system to the National Park Service in October. A small pole and two solar panels with a ni-cad charging system were installed in October, and the entire system was converted to DC power.

The particulate sampling program at Zion was discontinued this year. The contract with Crocker Nuclear Lab was discontinued, and the equipment was removed and returned to Davis, California.

Stress monitoring in the Zion-Mt. Carmel Tunnel is continuing. The Westinghouse extensometer system was reinstalled on August 5 and is working with the exception of Channel 14. All of the signs and wiring for the shear strip warning system were installed in October. The Carlson strain gauges are still in use, and the Whittamore gauge is functioning.

Backcountry impact evaluations were again performed this year to evaluate the influence of recreational use on resource values. This work indicates that the West Rim Trail and La Verkin Creek areas have the heaviest use. One extreme example occurred during the 1982 Memorial Day weekend when approximately 175 people camped along La Verkin Creek near the trail into Kolob Arch.

There were 1,070 permits issued for 3,582 people hiking the Virgin River Narrows (overnight and day-use). There were 1,514 overnight permits issued for 3,553 people hiking in other areas of Zion's backcountry. Figures indicate little change from the number of permits issued in 1981. However, trail counters and registers indicate nearly a 10 percent increase in hikers (mostly day hikes). There were 193,416 hikers recorded through these programs this year as compared with 174,692 during 1981. All figures are considered conservative, and it is estimated that as many as 35 percent of the overnight visitors in the backcountry fail to honor the permit system.

Zion's wilderness map was updated this year. New acreages were listed and the map redone. The recommendation for immediate designation as wilderness is 126,585 acres with potential wilderness additions now listed at 3,275 acres. BLM Wilderness Study Areas adjacent to the park boundary precipitated numerous discussions and meetings. In February, a meeting was held between park staff and BLM area managers from Kanab and St. George to discuss alternatives for small areas under 5,000 acres. The Secretary of the Interior in the meantime stated the small areas would be dropped from further consideration. A Regional team was in the park to study the matter but is now on hold. During November, Representative John Seiberling (Ohio), chairman of the House Subcommittee on Public Lands and National Parks, visited southern Utah to gather facts on wilderness matters and other related issues.

The preliminary FIREPRO submission was made in December. The print-outs for the next part are not expected until early 1983.

Following a hazard tree survey, a contract was let under the PRIP program. Resource personnel supervised the contract. All identified trees that constituted a hazard were limbed or removed.

A fire prescription was written and approved by Region. Portions of the two campgrounds were burned to reduce fuel loading and to give information on fire behavior for future fire management. Approval from the State Air Quality Office was also obtained.

Bristar 200 was used to crack a large rock in the river that had fallen from the cliff wall. The cracking agent worked well but the rock needed to be drilled deeper than available equipment would allow.

Dr. Stanley Welsh, professor of botany at Brigham Young University, assisted resource management personnel in identifying individuals of plant species that are currently proposed for endangered or threatened status. This will greatly assist the staff in monitoring these plant populations.

Region was kept apprised of several water issues that could ultimately affect the park. A bond issue was passed by voters allowing the Washington County Water Conservancy District to begin planning and developing nine reservoir sites, the primary one being Quail Creek Reservoir located west of Hurricane, Utah. However, two proposed sites are located east of the park boundary on the North and East Forks of the Virgin River. Being upstream, National Park Service concerns include the effect water temperature change and natural flow disruption would have on the riparian ecosystem within the park.

The Superintendent and Utah State Coordinator met with Cedar City officials, who are still seeking to obtain all the water rights of the Kolob Reservoir for their water needs. One proposal includes development of a reservoir on the North Fork near an area also proposed for a site by Garkane Power and the Washington County Water Conservancy District. Other alternatives are being discussed.

The Resource Management Plan for the park has been updated and submitted to Region.

A draft task directive for a Land Protection Plan was drawn up by the Regional staff, following input from the park on needed information. Plans are to complete the document in 1983. Some inholding problems were encountered again this year but were not of a major consequence.

Cultural Preservation

An Administrative History, Decision Making That Shaped Zion National Park, 1909 to 1981 by Dr. Dena Markoff has been accepted.

Dr. Dena Markoff has completed interviews of "old timers" and submitted transcripts for the Pioneers of Zion book to be published in a Diamond Jubilee edition in 1984.

The Zion Lodge Historic District was added to the National Register of Historic Places in August.

Ralph Hartley and Robert Nickel of Midwest Archeological Center visited Zion to obtain Section 106 clearance for construction of water and sewer lines to the lodge in 1984. They further assisted in clarifying old archeological records by reidentifying old sites in Zion Canyon. They also hired two seasonal employees to do additional site identification and recording (mostly Parunuweap Canyon) later in the fall.

Requests have been made of both historical and archeological staff in Region to obtain Section 106 clearance on a proposed irrigation ditch improvement and on certain PRIP projects.

A Cultural Resources Management Plan was begun with completion scheduled for 1983.

Sign Program

A revision/replacement of campground signs in both campgrounds was completed early in the year. This was part of a general program designed to mark campsites better and provide better traffic direction. Signing of the Zion-Mt. Carmel Tunnel was reviewed, and revisions aimed at improving tunnel safety were made.

Warning signs in foreign languages were placed at access locations for the Virgin River Narrows hike.

Based on complaints from park visitors, a sign was installed at the Temple of Sinawava asking bus drivers to turn off their engines.

Fee Collection

Fees totaling \$509,713 were collected during the year. This represents an increase of \$108,784 over 1981. Entrance fees amounted to \$324,455, a \$7,240 increase over 1981. Campground fees collected amounted to \$185,258, a \$101,544 increase compared to 1981. This was primarily due to camping fees being raised from \$2 to \$4 per site. Group charges remained the same.

At night during the summer when the fee stations were closed, a self-registration system was in effect. During the winter, a self-registration system was used in Watchman Campground and South Campground was closed.

The South Entrance Station was open from April 16 to November 2. The East Entrance Station was open from May 29 to September 30 seven days per week and from September 30 to November 2 on weekends. The East Entrance operated two more days per week and three weeks longer than in 1981.

Campgrounds

The South Campground was opened in May and closed in October. A new self-registration system was in effect when the fee station was closed. The Watchman Campground was open all year. Again, a self-registration system was in effect when the fee station was closed. New fiber glass site markers were installed at all campsites and seem to be holding up satisfactorily.

The reservation system for the organized group area was operated from March through October. The total number of campers using the group area totaled 9,924, a 13 percent decrease compared to 1981. Total use in both campgrounds, excluding the group area, totaled 199,998.

Special Use Permits

A Special Use Permit was issued to Le Grande Spilsbury for a stock drive through La Verkin Creek. No other permits were issued during the year.

Research

Dr. Richard Baumann from Brigham Young University collected aquatic insects from the North Fork of the Virgin River. No report has been received on results of the collection.

Steven D. Aird from Colorado State University did research on geographic variation in the western rattlesnake (Crotalus viridis).

Barry M. Connor, Museum of Zoology, University of Michigan, researched two groups of Orthoptera in the park.

Dr. Michael D. Windham from Northern Arizona University worked on cytological and chemical analysis of three species of ferns.

Dr. Stanley Welsh from Brigham Young University researched locations of sensitive plant species on the east side of the park. Several species were located in the Clear Creek drainage. Further work is needed if Dr. Welsh can return in the spring.

Dr. Jay Anderson, Dr. Bonnie Bowen and Dr. J. S. Griffith from Idaho State University were issued permits for collecting in connection with their research, but they were able to accomplish their work on the North Fork without collecting inside the park. Their report has not yet been finished.

Ms. Hope Humphries from Colorado State University has been continuing her research on three species of chipmunks in the park. Her work has been covered under a letter of authorization.

Dr. James Barnes from Brigham Young University has been conducting research on reproductive rates and distribution of the Zion snail under a letter of authorization. A new population has been located in a spring downstream from the original population along the Gateway to the Narrows Trail.

Charles R. Nelson, Utah State University graduate student, continued work on the Virgin River research contract. The park has had no information on the status of the work accomplished this year or on the total project.

Dr. Brent Palmer completed his botanical work at Cedar Breaks and submitted a final report.

Fire Prevention and Suppression

Prevention actions during 1982 included refolding of fire hose at the lodge, residential and headquarters areas. Fire weather data was taken daily at park headquarters and Lava Point for entry into the AFFIRMS terminal at Dixie National Forest.

Both lodge and park employees received some training in structural fire control within their areas of responsibility. Seasonal park employees were given S-130 and S-190 training prior to the wildland fire season.

The annual fire and safety inspection was conducted in November to identify potential problems in developed areas of the park.

The structural fire crew responded to five fires during 1982, including three in the local communities of Springdale and Rockville. Most were of a minor nature, but one studio structure was destroyed in Rockville.

Five new air packs were purchased to replace outdated models on the structural fire truck. Structural fire training was given periodically to brigade members except during the heavy-use season.

There were eight manned wildfires in 1982 during June, July and August. Six were caused by lightning, while two were man-caused. The Oak Road Fire, just outside the east boundary of the park, burned about 800 acres. Crews from the NPS, BLM, USFS and State of Utah cooperated in bringing it under control. Abundant rainfall during the season extinguished several fires before they were manned. There were two additional fires in wild areas adjacent to the park where Zion fire fighters took initial suppression action under our cooperative agreements until relieved by the appropriate agency.

Two prescribed burns were conducted during the winter in the campgrounds to reduce the fine fuel load, but high moisture conditions hindered their success. The prescriptions were modified to achieve more satisfactory results in 1983.

Development of a Fire Management Plan began during the year that hopefully can address the concept of natural burns as a management tool at some future date.

Search and Rescue

Five minor and four major searches were conducted during the year. The four major searches were conducted in June, September and October.

On June 2, 1982, a woman was reported missing near the Grotto Picnic Area. A young man reported Ms. Wandy Ruth Knight had disappeared during the night near the West Rim trailhead at Grotto Picnic Area. After a line search in the area and further investigation, it was determined that Ms. Knight was not in the area. She had apparently abandoned her traveling companion.

On September 3, 1982, a report was received concerning an overdue party in the Narrows with an injured hiker, Mr. William Freeman. Park Rangers assisted in locating Mr. Freeman and helping him reach the trailhead at the Temple of Sinawava.

On September 20, 1982, the largest search and rescue was conducted for Mr. Royce Trapier and Mr. Jim Harcourt. Mr. Trapier and Mr. Harcourt were attempting to hike the length of Heaps Canyon within the park. They became ledged up and were without food for three days. Over 100 man-hours were used in locating them, and approximately 10 man-hours were used in rescuing them from the narrow canyon. A helicopter from Grand Canyon National Park was used in the search and rescue effort. The total cost of the mission was \$2,576.

On October 9, 1982, a group of boy scouts (including twelve boys and four adults) was overdue 12 hours on a day hike in the Virgin River Narrows. The scouts were ill-prepared for the 13-mile hike. They spent a cold night without provisions on October 9. On October 10, park staff located the hiking party and assisted in carrying out two young boys. Members of the group were hypothermic and suffered from various cold-related ailments.

Search and rescue training was conducted by the park staff once during the summer. Fifteen individuals were given basic instructions in various technical rock rescue topics.

Climbing

There were 138 climbers who registered for 53 climbing permits. This was a decline of 12 percent from 1981, which had shown a decline of 20 percent from 1980. Zion continues to maintain a voluntary system of registering climbers, although actual compliance is unknown.

March, April and May were the busiest months for climbing, with the winter months showing almost no activity. The staff continues to control climbing at the Great White Throne due to peregrine falcon nesting.

An excellent article entitled "Climbs in Kolob Canyon" was published in Summit magazine, and additional information and route descriptions on various areas were added to the climbing accounts binder kept in the park dispatch office.

There were seven major "wall" climbs and 46 other climbs.

<u>Location</u>	<u>Number of Permits</u>
Angels Landing	2
Great White Throne	1
Mount Moroni	1
Moonlight Buttress	2
Observation Point	1
Miscellaneous climbs (Carbuncle, North Guardian Angel, Checkerboard Mesa, Lady Mountain, Pine Creek, Emerald Pools, etc.)	46
Total	<hr/> 53

MAINTENANCE

Buildings

A routine maintenance program, with a limited amount of cyclic projects, was carried out during 1982. The new PRIP projects were the highlights of the year.

Efforts must continue to develop more efficient methods of accomplishing given tasks to make the dollars stretch further.

All buildings were again checked for deficiencies, and corrections were made on a priority basis as far as available funding and time would permit. Considerable work was done on Quarters 2, 8, 9, 10, 21, 25, 31, 38 and 40, including rewiring, roofing, flooring, painting, plumbing, and installing screens and storm doors.

All chimneys in quarters with wood burning stoves were inspected and cleaned. New Woodsman stoves were installed in Quarters 3, 21, 31 and 32. There are still six houses without wood burning stoves. This should be completed during the 1983 fiscal year.

New concrete floors, overhead doors and storage shelves were installed in eight unattached residential garages.

Other buildings maintenance included the installation of insulation and exterior lap board siding on the north side and a portion of the east side of the Nature Center building. It was later primed and painted.

The following PRIP projects were accomplished by day labor:

1. Interior and exterior surfaces of the visitor center were painted.
2. The old concrete floor of the automotive shop was removed and repoured (1,800 square feet). A new automotive hoist and three new overhead doors were installed. The building was rewired, including new fluorescent

lighting, and the plumbing upgraded. The old air compressor and all air lines in the shop were replaced, and a new 720 square foot concrete approach pad was poured in front of the shop.

3. The electrical system in the Nature Center was upgraded including new service entrance cable, circuit breakers, wiring and fluorescent lighting. The walls, floors and ceiling of the kitchen area were remodeled; the walls and ceiling were insulated, covered and painted.
4. The park warehouse was rewired and new fluorescent lighting installed. The ceiling was made ratproof by installing furring strips and hardware cloth.
5. The South Campground Amphitheater was rehabilitated including a new concrete slab (2,000 square feet) for the seating area (400 seat capacity) and installation of newly painted aluminum seats. The electrical service was upgraded including installation of new walk lights. Old asphalt walks (150 feet) were replaced with concrete.

The Zion Natural History Association contracted the construction of a new storage building on the west side of the visitor center for which the Buildings and Utilities Foreman provided onsite inspection during construction. The Maintenance Division poured a concrete walk connecting the new building to the existing walks adjacent to the visitor center.

The new structure for self-registration was constructed at the entrance to the South Campground. It included pouring a concrete pad and constructing three walls with a short roof overhead. Lighting and bulletin boards were provided.

Utilities

The one million gallon water storage reservoir located at Birch Creek was drained and the interior inspected and found to be in excellent condition.

New water meters were installed on water systems as follows:

Birch Creek - two 6-inch and one 4-inch
Oak Creek - two 4-inch
Pine Creek - one 2-inch
Lower Grotto - one 3-inch

Data obtained from these meters will provide the park with good water use figures.

An additional existing water line serving the park maintenance area was excavated and new bell joint repair clamps installed on the leaking, 4-inch, lead caulk joint pipe. This has been an ongoing project for several years but is approaching completion.

Plumbing service to and inside the pipe alley of the restroom at the Grotto Picnic Area was completely replaced.

A 100 foot section of root-filled sewer line was replaced between Restroom 137 and the manhole on the main trunk line.

The existing obsolete sewer system at Lava Point was replaced with a new 1,000 gallon septic tank, leach field and 4-inch sewer line from the cabin to the septic tank.

A new 2-inch water line, complete with a booster pump for fire protection, was installed at the horse concessioner's stable and residence area.

At Zion Lodge, 350 feet of underground wire, a steel pole, a light and fixture were installed to provide security lighting for one of the cabin parking areas. Also, a damaged pole and light fixture were replaced near the male dorm at the lodge area.

Utah Power and Light Company, in cooperation with park crews, installed approximately 2,000 feet of underground electrical cable to the Zion Nature Center and South Campground Amphitheater. The power company also installed pad-mounted transformers at each facility.

Grounds

Approximately 40 new aluminum table tops were installed on campground picnic tables. About 40 percent of the picnic tables in the park now have aluminum seats and tops, which are nearly maintenance free.

Irrigation, planting, pruning and removal of trees continues to be a very time-consuming project. A PRIP project for pruning and removal of hazardous trees provided labor to accomplish this type of work in the campgrounds and other high-use areas which have long been neglected.

Roads and Trails

A routine program of patching, crack sealing, shoulder and drainage maintenance, and rock and minor slide removal was carried out throughout the year.

The sealcoat program consisted of chip sealing six miles of Route 1 and several small parking areas.

All of Route 1 (13 miles) was center striped later in the season. All parking areas along Route 2, the canyon drive and at the visitor center requiring striping were also done.

A 2-inch asphalt overlay was placed on the South Campground Amphitheater parking area and the parking areas both in front of and behind the Nature Center.

The road and parking area serving the horse concession facility was based and a 2-inch asphalt surface applied.

The old concrete base that supported large diesel generators operated by the Union Pacific Railroad many years ago was removed. It required a considerable amount of explosives as the base was well constructed. It was located in Birch Creek near the concessioner's stables. The area was restored to its natural state.

A washout along Route 2 caused by the Virgin River required over 30 cubic yards of concrete and over 100 cubic yards of large stone to repair.

A large stone and concrete down drain alongside the stone arch bridge over Pine Creek was repaired after a complete washout by heavy rain.

The large wood rails of the Virgin River bridge near the junction of Routes 1 and 2 were stained.

The following PRIP projects were accomplished under the roads and trails program:

1. New concrete walks were constructed in the area of the 40 Western cabins at Zion Lodge. Existing flagstone walks in the remaining cabin areas were rehabilitated. A new concrete walk, a set of stone steps and two handicap ramps were constructed to provide access from the parking areas to the Western cabins.
2. The upper loop of the Emerald Pools Trail received considerable rehabilitation work. Native stone retainer walls (700 feet) were constructed, several sections of trail were stabilized with soil cement, and trail grade and drainage were improved over most of the upper loop.
3. The largest PRIP project consisted of repairing 14 major sandstone retainer walls supporting the road grade on the Zion switchbacks. This phase of the project was accomplished by an 8(a) contractor. Inspection and project supervision were provided by the Zion maintenance staff.

Another phase of the same project was the removal of a 1,200 foot long stone retainer wall on the Taylor Creek Road. Minor road realignment was required to move the road away from the cut bank to allow construction of a catch ditch. The catch ditch should now keep loose rock from rolling onto the roadway. The previously existing rock wall actually created a catapult, causing rolling rocks to fly freely onto the road and into traffic.

Federal Highway Administration personnel completed an inspection of all bridges in the park in May.

OTHERSpecial Events

The Utah Travel Council sponsored a nine-day tour of Utah for recreational vehicle and motor coach company presidents. The group was given a talk by Zion personnel in April.

The Utah Lung Association sponsored a "Bike Trek" through Zion in June.

The Southern Utah Folklife Festival, which drew about 6,000 participants, was held September 9, 10 and 11.

Southern Utah State College sponsored a new educational experience called "Weekend College in Zion." The Nature Center was used by the group for two separate events.

Media Relations and Public Affairs

Contacts with the local media and civic organizations were maintained throughout the year. The Superintendent contacted numerous groups and individuals on Kolob Canyons planning and also updated them on park projects, PRIP, concession contract proposals, wilderness and water issues.

Several interviews were held with park staff by Newswatch 2/KUTV (Salt Lake City), KVBC/Channel 3 (Las Vegas) and KOOL/Channel 10 (Phoenix), as well as live and taped radio interviews on current activities by KDXU (St. George) and KBRE (Cedar City).

Production of a sound and light show, being professionally done by Bonneville International (KSL-TV) for Dixie College, was begun in 1982. It is scheduled for showing six nights a week during the 1983 season at the O. C. Tanner Amphitheater in nearby Springdale. The park staff was contacted to go over the script and to assure accuracy of dialogue addressing the park.

Volunteers-In-Parks Program

The Volunteers-In-Parks program continues to add significantly to meeting Zion's needs. During 1980, 12 VIPs participated in this program, contributing a total of 1,373 hours; 28 VIPs in 1981 volunteered 3,112 hours; and 25 VIPs added another 4,311 hours in 1982! Most VIPs served in the Interpretive Division performing such duties as operating the information desk, conducting guided walks and hikes, presenting evening programs, assisting the park librarian, working with the park herbarium and generally assisting the naturalist staff.

Former Zion Superintendent Warren Hamilton again worked busy summer weekends as a VIP and assisted hundreds of visitors at trailheads and other points of congestion. Former Assistant Chief Naturalist J. L. Crawford continued to donate his darkroom skills to update the park's historic photographic files and provided valuable information concerning people, buildings and other landmarks identified in the photographs.

Other VIPs worked with the Resource Management Specialist and in the Ranger Division on projects concerning the peregrine falcon and bighorn sheep populations, backcountry use patterns, petroglyph/pictograph inventories, trail patrol, upkeep and maintenance of equipment and facilities, interpretation of telephotometer data and other projects.

In addition, both the Administrative and Maintenance Divisions were recipients of some VIP assistance.

The money saved through VIP services continues to be quite impressive: Based on a GS-4 salary, the 4,311 hours of donated time equals approximately \$24,042 (exclusive of the benefits, uniform allowances, premium pay, etc., that a normal employee receives).

Student Conservation Association Program

The Student Conservation Association provided the park with five Park Assistants. Three women worked with the Interpretive Division performing various naturalist duties, and two men were assigned to the Resource Management Specialist for bighorn sheep, peregrine falcon and backcountry use observations. As in past years, the Zion Natural History Association provided funds for the housing needs of all the Park Assistants, who were all housed within the park during 1982.

Several onsite naturalist talks on the history, natural resources and policies of Zion National Park were provided the High School Wilderness SCA group camped near Stave Spring.

Park Internship Program

Assistant Chief Naturalist Given continued the Park Internship program at Zion that he instituted last year in order to provide additional personnel to meet staffing needs. Interns are special Volunteers In Parks who agree to spend 8, 10 or 12 weeks at the park in nonpay status in order to gain an orientation to the Park Service as well as practical field experience in the park setting. In turn, they are periodically evaluated by the park internship coordinator and receive semester credit at their college or university.

Ms. Nancy Fonicello, Iroquois Indian, from Cornell University in New York and Ms. Jody Glassner of Northeastern Illinois University were selected as the park interns and contributed over 894 hours while working for the Division of Interpretation with some assignments in the Administrative and Maintenance Divisions and with the Resource Management Specialist. All parties benefited from this successful program.

YCC Program

This program was not available in 1982.

Cooperation With Other Agencies

Zion conducted another bald eagle census in cooperation with the Utah State Department of Natural Resources. Input was also provided for their Utah Bird Latilong Distribution document.

The Superintendent and Chief Park Naturalist visited Joshua Tree Natural Area, located within the Woodbury Desert Study Area of the Dixie Resource Area of the BLM, as a part of the yearly visit to National Register sites located outside of National Park Service areas. It appeared to be in good condition.

Zion maintains a cooperative fire agreement with the town of Springdale to provide structural fire protection.

A cooperative fire agreement was approved with the U.S. Forest Service, BLM and State of Utah Forestry Department for mutual wildfire protection. The BLM office in St. George provided helicopter use for fires in the park.

The FBI conducted two firearms training sessions and taught classroom subjects for updating park personnel in law enforcement.

Meetings were held periodically with District Managers of BLM in Cedar City and St. George and with the Supervisor of Dixie National Forest in Cedar City to keep them apprised of National Park Service issues and to discuss mutual problems.

Similar meetings were held with State agencies, including State Parks and Recreation, Wildlife Resources, Utah Travel Council and Utah legislators.

Safety

The Park Safety Committee conducted monthly employee safety programs in the Visitor Center Auditorium. Programs were as follows:

January	- Fire Practices	July	- Summer Vacation
February	- Defensive Driving	August	- Safety Belts
March	- Hand Protection	September	- Fire Extinguishers
April	- Office Safety	October	- Physical Fitness
May	- Lifting	November	- Hearing
June	- Driving Safety	December	- Electricity

The Safety Committee conducted the parkwide annual fire and safety hazard inspection of all facilities on November 29, 1982.

The committee inspected PRIP work sites including trail improvement, road-side rock wall construction, hazard tree removal, amphitheater seating, etc.

Several new pieces of radio equipment were ordered for the tunnel monitoring and control system.

During 1982, six motor vehicle accidents resulted in eight visitor injuries. The most serious injuries sustained in motor vehicle accidents were a back injury and a lacerated finger.

Five government employees were involved in four vehicle accidents; no injuries were sustained.

There were four lost-time employee accidents during the year. Ten additional employee injuries, including one off-duty injury, resulted in no lost work time.

Ninety personal injury visitor accidents, excluding motor vehicle accidents, were reported. The most serious involved seven visitors who suffered falls that resulted in various fractures.

Two deaths occurred within the park. Both victims were determined to have died of natural causes.

A major safety effort was implemented by contracting with Weatherbank, Inc., of Salt Lake City (Mark Eubank) to make site-specific weather forecasts for Zion. This contribution by the Zion Natural History Association aided the rangers in making decisions on opening and closing the Virgin River Narrows for hiking.