

Superintendent's Annual Narrative Report Arches National Park 2006

Major Issues

Core Operations Analysis In January 2006, Arches National Park (ARCH) initiated a Core Operations Analysis (Core Ops) — a management tool developed by the NPS Intermountain Region (IMR) to assist in strategic and financial planning. The intent of the analysis is to assist park managers in making fully- informed decisions on staffing and funding alternatives that directly tie to core NPS and ARCH goals. The Core Ops analysis will provide a quantifiable and defensible foundation for future ONPS requests by directly linking expenditures to operational goals. Further, the analysis will be an important tool to assist managers in making fiscally sound decisions regarding budget allocation and human resources as well as ensuring long- term solvency.

January 18-19, 2006 the ARCH Core Operations Analysis Workshop was held. ARCH is a member of the Southeast Utah Group (SEUG), comprised of ARCH, CANY, HOVE, NABR, and the ARCH operation is in close physical proximity to CANY. Since the parks share some operational elements, during the ARCH and CANY Core Ops processes, additional opportunities for logical efficiencies were sought. Some of those efficiencies were implemented in 2006: the mergers (between CANY and ARCH) of the Chief of Maintenance position and the Chief Ranger position. In addition, the ARCH Superintendent position was merged with the Southeast Utah Group Assistant Superintendent position.

Flash Flooding of Salt Wash Crossing, Delicate Arch Trail

Major flash flooding in early October 2006 removed a section of the Delicate Arch trail adjoining the existing Salt Wash footbridge. On the night of October 6th during an intense lightning and thunderstorm, a litter team carried an injured male out from Devils Garden and another crew worked to rescue more than 20 hikers that were stranded on the Delicate Arch trail. Heavy equipment was utilized to ferry the hikers across the flooding wash. The trail was temporarily rerouted along the park road, and shortly thereafter, a temporary boardwalk was constructed across the flooded area to re-connect the trail. Park, Resource Management and Maintenance staff, assisted by staff from the Water Resources Division and the Intermountain Regional Office, began an environmental assessment process to evaluate alternatives for the trail crossing. Selection and implementation of a decision is expected in 2007.



Delicate Arch/Wolfe Ranch Trail before flooding



After flooding

In the News: After learning on May 8, 2006 that climber Dean Potter had free-climbed Delicate Arch the morning of Sunday May 7, 2006, Solicitor Kevin Jones and Southeast Utah Group General Superintendent Tony Schetzle were immediately consulted to obtain guidance on emergency actions needed to prohibit additional individuals from climbing Delicate Arch, or other named arches within the park. The safety of climbers, visitors and protection of the fragile arch structures were all of immediate concern. Both Jones and Schetzle recommended immediate revision of the park's compendium to clarify the longstanding intent of a climbing closure on "Any arch named on the United States Geological Survey topographical map." (January 23, 1988 Superintendent's Directive 'Arches Rock Climbing Policy'), and to update the outdated compendium climbing section to reflect current climbing terminology and activities. For example, because of an incident in March 2006 of an activity previously unknown to Arches staff called slacklining (defined as walking on a rope or other line that is anchored between rock formations, trees, or any other natural features), slacklining was also addressed in the compendium. The investigation into the Delicate Arch climb and circumstances surrounding has been active and ongoing since May 2006. The park will initiate a Climbing Management Plan process in early 2007.



Slacklining the Three Gossips



Climber on Delicate Arch

Atlas tailings pile remediation

After a 2005 decision to relocate the Atlas tailings pile to a safer location at Crescent Junction, the Department of Energy continued work to design and implement this decision in 2006. Progress on implementation will depend on annual congressional funding. Various initial activities for relocation of the tailings are underway on the mill site, including construction of water systems and revegetation of native species. In July 2006, DOE began cleanup of contaminated soil along the highway 191 right-of-way, adjacent to and within Arches, to complete a project started by the Utah Department of Transportation in 2003 as part of the widening of the highway. Contaminated soil to a depth of 6 to 12 inches was removed on a total of about 21 acres, including 0.4 acres within Arches. These areas were backfilled with uncontaminated soil, then seeded with native species in the fall. Work within the park was completed under an interagency Remedial Action Agreement with NPS, with guidance from RM staff.

Proposals for **mineral leasing** on surrounding lands continued to be a major issue for the park in 2006, and the superintendent continued communications with local BLM staff to discuss these. Proposed residential and commercial developments on lands adjacent to, or near, the park continue to pose threats to viewsheds and natural resources.

Transportation Plan Consultants completed a transportation plan and environmental assessment for Arches, with oversight from park, CANY Resource Management, and DSC staff. The plan/EA was released for public review, and the park held a public open house with about 15 attendees. Public comments are being reviewed and a decision document being prepared.

Administration

Appropriations

The Arches National Park total ONPS Green Book funding for fiscal year 2006 was \$1,222,000 prior to IMR assessments. ONPS authorization after assessments was \$1,178,078.

Fiscal/Budget

<u>ONPS</u>	Administration	\$ 215,610
	Interpretation	\$ 356,420
	RMVP	\$ 336,880
	Maintenance	\$ 268,490
	Total	\$1,177,400
<u>No Year</u>	None	
<u>Housing Carryover</u>	\$ 61,764	
<u>Housing Revenue 2004</u>	\$ 15,230.06	
<u>Donations</u>	\$ 46,405.62	
<u>Cost Recovery Revenue</u>	\$ 10,481.22	

<u>Soft Funding:</u>	Concessions Operations Enhancement	\$ 3,000
	VIP Program	\$ 8,800
	Rehab 2-miles of Trail	\$ 19,300
	Installation of Frontcountry Fencing	\$ 47,456
	Repaint Interior of Library	\$ 9,044
	Emergency Replacement of Entrance Station	
	Septic System	\$ 42,230
	Correct Deficiencies in Two Park Septic Systems	\$ 10,477
	Rehab SEUG Trails – 4C’s	\$100,000
	Rehab Devils Garden Amphitheater	\$ 26,181
	Rehab Devils Garden Picnic Areas	\$ 69,956
	Replace Floor Coverings in Custodian’s Residence	\$ 8,866
	Correct Deficiencies on 9.5 miles of Trails	\$ 10,922
	Cost of Collection	\$363,637
	Rehab of VC Water Supply Line	\$185,000
	Emergency Flash Flood Road Repair	\$100,600
	Improve Campground Host Site	\$ 4,000
	Radios for Volunteers	\$ 4,800
	NRPP-Collection Spring Flow Data	\$ 3,000
	FIREPRO-RMVP Shelters and Packs	\$ 3,500

Public Use/Visitation

Visitation in 2006 was 833,051. This is a 6.5% increase from the 781,672 visitors in 2005. The total number of vehicles entering the park was 301,903. 6,862 hikers were issued permits for the Fiery Furnace. Campers in Devils Garden Campground were 45,542. Canyon Country Outdoor Education conducted 28 field trips into Arches National Park, bringing over 750 participants. In 2006 1,414 information requests were mailed.

Fee Revenues

Fee Revenues under the Fee Demonstration Program totaled \$1,851,919 for CY 2006. Other income collected was \$17,125 for special use permits and \$ 14,111 for donations.

Sources:	Campground Fees	\$ 221,978
	Fiery Furnace	\$ 138,191
	Entrance Fees	\$1,460,485

The Fee Collection Operation Cost of Collection Budget for FY2006 was \$363, 367.

Volunteers

Twenty volunteers provided 6581 hours of service at the Devils Garden campground, doing fee compliance checks and various other hosting duties. Two sets of hosts are on at the same time putting in one to three month stints from March 1 through the October 31. Murray Shoemaker coordinated his tenth annual Sierra Club work group in April; they provided over 600 hours of volunteer labor. Tasks included weeding exotic plants around and laying a stepping stone path behind around the new visitor center, moving rocks and delineating the four-wheel drive road

from the Delicate Arch Viewpoint parking area to the park boundary, carrying fence posts around Eagle Park for a future fencing project, and removing a fence in Seven Mile Canyon destroyed by a flood.

The Student Conservation Association continued to provide excellent Resource Assistants for our volunteer program; four volunteers, each working twenty-week sessions, provided useful, skilled and experienced additions to our staff. Two other full-time interpretive volunteers worked various lengths of time, with four matching the SCAs time. Twenty-three full-time and part-time interpretive volunteers worked a total of over 2500 hours in a variety of interpretive duties. The park's total volunteer commitment, including interpretive, resource management, general, and campground host duties, totaled nearly 14,264 hours donated by more than 100 volunteers.

Maintenance, Facility Management and Development

Personnel:

The Facility Manager position was vacant during most of FY2006, and during this time Todd McDougall, John Lewis and Tome Johnson acted in the position. As a result of the park's Core Operations analysis, this position was merged with the Canyonlands NP Facility Manager position, held by Wayne Nielsen.

Planning:

Maintenance staff participated in planning and reviews for Fee Demonstration, FHWA and Repair/Rehab projects.

Safety:

The Facility Management Division conducted regular weekly safety meetings, installed new safety signage and continued to develop and implement Job Hazard Analyses for work activities.

FMSS:

ARCH continued the implementation of the Facility Management Software System in 2006. All 2006 FMSS requirements and deadlines were accomplished and all maintenance activities are being tracked using the FMSS system.

Operations: Performed routine operations activities including:

- Routine custodial duties at Visitor Center, I&M building, Rock House, 16 vault toilets, and Campground comfort stations
- Routine water sampling
- Solid waste disposal
- Roadside litter pickup
- Routine campsite maintenance
- Mowing, trimming and irrigating grounds.
- Charging vault toilets
- Pest control and rodent-proofing
- Tree trimming
- Routine housing inspections
- Maintenance and troubleshooting of the new Visitor Center HVAC, lighting, fire suppression system, irrigation system, and installation of Visitor Center shade awnings.
- Repaired, cleaned, and serviced furnaces, evaporative coolers, and A/C units.
- Painted park signs, pavement symbols, and vault toilet interiors.
- Replaced miscellaneous water valves throughout park.
- Installed vacuum breakers throughout the park.
- Sealed fences, roof shakes, and signs.
- Repaired lawn sprinkler system.
- Removed weeds from drainfields, trails and around buildings.
- Built new roadway and backcountry trail signs, and painted all routed signs.
- Replaced several kitchen and bathroom faucets.
- Replaced several window curtains in park buildings with blinds.

- Replaced cork in exhibit information signs.
- Repaired or replaced a number of door locks on park buildings.
- Repaired several sewer lines.
- Cleaned carpet in Visitor Center, Rock House, and seasonal housing.
- Serviced and repaired Devil's Garden Generators.
- Repaired several flood-damaged areas in park.
- Removed rockfalls from park road.
- Serviced and repaired water-system chlorinators and pumps.
- Replaced bearings and shock absorbers on Devil's Garden solar panels.
- Reset several sign posts on park roads and trails.
- Repaired park fences.
- Repaired building windows and latches.
- Replaced all furnace filters.
- Tested all GFI breakers.
- Repaired leaks in Maintenance Building roof.
- Serviced Interior vehicles.

Maintenance/Projects

Completion of Rehab Devils Garden Photovoltaic System – This work included replacement of all PV systems within the Devils Garden campground, refurbishing the Ranger Residence to accommodate volunteer campground hosts, and changing the water pumping system to a PV system from the current diesel generators (an efficiency of approximately \$3,600/year). To conserve water, waterless urinals were purchased for all the comfort stations, and low flow toilets were purchased and installed.

In 2006 the Facility Management Division received and managed approximately \$880,000 in project and soft-money funding from various sources including Fee Demonstration and Repair/Rehab for the following projects:

Replace Front Country Fencing – Approximately 10,000 lineal feet of front country fencing were replaced with recycled plastic fencing. Skyline Arch, Sand Dune and the Windows parking areas are complete.

- Emergency Flash Flood Road Repair Delicate Arch Viewpoint road –Flash floods the fall of 2005 covered the roadway, plugged culverts and washed away shoulder materials and rip rap, leaving visitors trapped in the Delicate Arch Viewpoint parking lot for hours. Emergency funding was received from IMRO to clean out culverts, re-establish shoulders and ditch lines, and replace rip rap. State permits for work in stream channels were received, and SEUG Roads Crew conducted work in spring 2006.
- Trails maintenance on Fiery Furnace, Sand Dune Arch, Skyline Arch, and Park Avenue. Trails maintenance was conducted by both a seasonal trail crew and ACE Youth Core Group. Rehab work was done in the Devils Garden picnic area, campground, and amphitheater.
- Repaint interior of Library/I&M Building
- Emergency Replacement of Entrance Station Septic System (CANY Project and Road crews)
- Correct Deficiencies in Two Park Septic Systems (CANY Project and Road Crews)
- Rehab floors in Custodian's Residence
- Planning and initial work for rehab of VC area water supply line

RESOURCES STEWARDSHIP

Unless otherwise noted, resources stewardship activities at Arches were conducted by CANY staff

Vegetation Monitoring

- All 53 long-term vegetation-monitoring plots throughout the SEUG, including plots in Arches were visited and data collected.
- All matching photos have been organized into sets for easy analysis.

- All data has been organized and prepared for analysis.
- All vegetation data from 1987-2006 has been organized, standardized, summarized, and placed in one MS ACCESS file.
- All data from 1988-2006 was organized into one mega-ACCESS file.

Riparian Bird Monitoring

Conducted at SEUG parks under Northern Colorado Plateau I&M Network contract with Rocky Mountain Bird Observatory. During one of her ARCH riparian bird surveys in Courthouse Wash on June 3, 2006, Sonya Daw found a Yellow-billed cuckoo (*Coccyzus americanus*). The bird appeared to be building a nest. This species is currently a Federal "Candidate" for listing as Endangered. This is the first sighting of this species in ARCH.

Bighorn Sheep Monitoring

The desert bighorn sheep of the SEUG were monitored throughout fiscal 2006. The study and monitoring focused upon the 12 radio-collared sheep on the Island District and the two radio-collared sheep remaining from the 2000 capture in the Arches herd. Of special importance again this year was the study of the lambing success of the ewes and subsequent recruitment into the herd, critical lambing and rutting areas and dates, home ranges and movements, relative health and population demographics. Monitoring was only approximately half of the desired level due to severe budgetary constraints and resulting cutbacks within the SEUG.

The Arches herd has shown very poor recruitment the past eight years, but the population still has about 60 animals, some of which are on adjacent BLM lands. Predation by lions appears to be a major factor in the decline of this population. Only two radio-collared animals remain in this herd. The need exists to capture and collar more animals soon in this population, as the remaining active collars are well-beyond battery life expectancy.

The 2006 lambing season has been productive, with an overall summer lamb: ewe ratio of 68:100 and only a few mortalities noted.

Peregrine Falcon Monitoring

Peregrine falcon territories within the SEUG were monitored according to protocol for occupancy and reproductive success, as time permitted. Monitoring was only approximately half of the desired level due to the severe budgetary constraints and cutbacks within the SEUG. 14 fledglings were produced from seven successful nests. The delisted falcon is mandated to be monitored as part of a larger U. S. Fish and Wildlife Service post-delisting monitoring plan through 2015.

Water Monitoring

- Two sites in ARCH were monitored monthly starting in July, 2006. All samples were sent to the Utah Department of Health in Salt Lake City for a complete chemical analysis.
- Bacteria samples were taken and analyzed at most of the sites.
- Macro-invertebrates were collected at all water sites 3 times a year.
- The water quantity project in ARCH was continued for the 6th year in a row with some funding from the NPS Water Rights Division in order to assist ARCH and WRD with field data necessary to write a groundwater protection Plan.

Species Lists

- All species lists for the parks of the SEUG were updated and posted on the SEUG SharePoint website.

Exotic Plant Control

Work was done with Exotic Plant Management Teams, Sierra Club Service Group, wilderness volunteers, other volunteers, youth groups and the Utah Conservation Crew. The major exotic plant project was tamarisk control in ARCH Sevenmile Wash and CANY Horse Canyon. Other time was spent on smaller projects and re-treatments of past control efforts. Acreages were calculated by GPS. Approximately 110 acres were treated involving 2,200 man hours. Exotic species controlled included Tamarisk, Russian Knapweed, Diffuse Knapweed, Field Bindweed, Purple Loosestrife, Ailanthus, and Siberian Elm.

ARCH- Tamarisk was treated in Courthouse Wash, Sevenmile Canyon and Fish Seep Draw, Russian Thistle was treated along the entrance road, and both Russian Knapweed and Tamarisk were treated in Cordova Canyon. The SEUG crew and Arches staff also removed puncturevine from the housing area and from along the park roadside.

Weather

- Weather data was taken from all units of the SEUG and entered into an EXCEL spreadsheet. This information will be used in future analysis for weather related differences in vegetation cover etc.
- New constant monitoring digital temperature and precipitation gauges were downloaded at most vegetation monitoring sites throughout the SEUG.
- All digital data has been organized and stored in Excel spreadsheets.

Historic Photo Project

- Historic photos of the parks of the SEUG were collected at various regional museums and depositories.
- Many photos were scanned into digital format.

Planning/Environmental Compliance

Highway 191 Colorado River bridge replacement

A contractor for UDOT developed plans and an environmental assessment for replacement of the bridge and improvement of the adjacent section of the highway. The highway adjoins the park and actually crosses the boundary into the park for short sections, so the NPS previously granted UDOT an easement for highway operation and maintenance. Under section 4(f) of the Department of Transportation Act of 1966, use of land within an NPS unit (as well as various other public lands) for a highway requires a concurrence from the land-managing agency that there is no prudent and feasible alternative, and that all possible planning has been done to minimize harm to the affected public land. The transportation act known as SAFETEA-LU of 2005 streamlines this process if there are only “de minimis” impacts to NPS or other public lands. RM staff reviewed the UDOT EA and in accordance with these two statutes, Arches Superintendent Laura Joss signed a concurrence for the proposed bridge and highway improvements.

New BLM Resource Management Plans

The Moab and Monticello BLM offices have been in a process to develop new resource management plans and environmental impact statements for over three years. Management direction in these plans will likely be in effect for 15 to 20 years. The offices have developed preliminary management alternatives and are refining these in preparation for public release and review. Superintendents and RM staff reviewed the preliminary alternatives, and met with BLM managers and staff to provide suggestions and concerns. Public release of the draft alternatives and EISs is expected soon.

Environmental Screening Forms

RM staff coordinated environmental compliance and completion of environmental screening forms for 33 proposed administrative projects and activities.

Research

- 12 Research Permits were issued in ARCH. Details of the research permits are captured each year in an annual report for central files and is also in SEUG SharePoint

Cultural Resource Management

- **Arches Site Documentation:** Flanigan updated documentation and received SHPO Determinations of Eligibility for 9 previously known sites.
- **Arches Site Documentation/VIP Project:** Flanigan and three volunteers completed documentation for a site near Dark Angel, two rock art panels, and a rock shelter with the help of two volunteer workers. Site data, photographs, GPS locations and condition assessments were entered into the ASMIS and SEUG ArcDoc data bases.

- **Arches Corrective Action Plan:** Flanigan updated documentation and condition assessment for 23 previously known sites.
- Several volunteers signed up as VIPs to assist with the Rock Art documentation in ARCH.

SEUG Cultural Resource Database Data Entry

- **Image Doc:** 25 new ARCH photos entered (not necessarily taken) by Flanigan (all ARCH).
- **ArcDoc:** 4 additional ARCH sites entered (not necessarily recorded) in FY06

SEUG Curatorial Operation In addition to routine tasks and working to meet FY06 GPRA goals, the following work was accomplished in FY06:

Provided research and other assistance for: NCPN I&M Program; SEUG Administrative Division staff; SEUG Resource Management staff; SEUG Interpretive operations (CANY, ARCH and NABR) and CNHA.

Records Management/Collections Documentation

- Managed an increasing number of loan agreements (50+)
- Brought the total percentage of collections cataloged for SEUG from 60% to 94%
- Implemented WASO Corrective Action Plan for SEUG parks' museum records

Facilities/Objects Management

- Contributed to revision of SEUG Emergency Operations Plan
- Submitted PMIS project proposals for all remaining MCPPP Checklist deficiencies
- Installed resistance cords on open shelving to protect archives in case of earthquake

Other

- Provided educational sessions for the 4C's and seasonal interpreters
- Updated the SEUG Scope of Collections Statement

The following resources stewardship activities were conducted and/or overseen by Arches NP Resource Management Visitor Protection ranger Gary Salamacha:

Raptor Monitoring With the assistance and one Student Conservation Association volunteer/intern, Salamacha conducted the 24th annual Raptor survey throughout Arches National Park. This year was the highest recorded numbers of nests and fledglings ever recorded during the survey.

Upland Pinyon-Juniper Breeding Bird Survey With the assistance of one Student Conservation Association volunteer/intern, Salamacha conducted the 24th annual Upland Pinyon-Juniper Breeding Bird Survey. It was noted that the numbers were down in the species that utilize this habitat. It is suspected that might have been caused by the recent die-off of Pinyon trees thus limiting the available habitat. It is suspected that the Pinyon die-off is a result of infestations by the Ips beetle.

Breeding Bird Road Survey With the assistance of one Student Conservation Association volunteer/intern, Salamacha conducted the 18th annual Breeding Bird Road Survey. No obvious differences were noted. Results were sent to the US Fish and Wildlife Service.

Heron Rookery Monitoring With the assistance of one Student Conservation Association volunteer/intern, Salamacha conducted the 10th annual Heron Rookery monitoring. It was noted that at least 27 birds fledged which is the highest number since the monitoring began.

Southwest Willow Flycatcher Salamacha surveyed for SWFL from the northwest boundary of Courthouse Wash to about ½ m southeast of Seven-mile Canyon. No birds were observed

Arches Biscuitroot (*Lomatium latilobum*) Monitoring Salamacha monitored biscuitroot plots in Devils Garden.

Exotic Plant Control It was noted that the Chinese Beetle had moved into lower Courthouse Wash. This beetle was introduced by the state on lands adjacent to the park as a control for Tamarisk.

The Lake Mead Exotic Plant Management team spent two weeks (2322 person hours) in the park. In the spring they treated approximately 1 acre of Tamarisk and Russian Olive in Anderson Gulch. In the fall they treated approximately 3.9 acres of Russian Olive in Lower Courthouse Wash. The decision was made to focus on Russian Olive in this area because of the activity of the Chinese Beetle moving into the Tamarisk.

Other Resource Management-related activities

Park Ranger Lee Ferguson continued monitoring *Lomatium* study plots in the Fiery Furnace. Park Ranger Lafever compiled a variety of data pertaining to wildflower blooming times and weather data, and continued to work on a web site presentation.

Major flooding in early October caused damage to fences throughout the park. Park Volunteer Sara Bartels hiked the entire fence line and noted needed repairs. She and Salamacha spent approximately 150 hours checking and repairing fences throughout the park. Significant damage occurred in Cache Valley, Upper Courthouse Wash, Cottonwood Wash and Lost Spring Canyon.

Resource and Visitor Protection

Chief Ranger Glenn Sherrill retired in April 2006 and ranger McKinlay-Jones filled in as Acting Chief Ranger. As a result of the park's Core Operations analysis, this position was merged with the CANY Chief Ranger position, held by Peter Fitzmaurice. Upon Fitzmaurice's retirement, Paul Cowan assumed the role of acting chief ranger for both ARCH and CANY. Karen McKinlay-Jones was selected as the supervisory park ranger for the Arches Resource and Visitor Protection Division. Tung was converted to a permanent position with the transfer of Ramsdell in May.

Law Enforcement

- There were two Part I offenses at Arches in 2006.
- There were eight Part II offenses including five, vandalism, one disorderly conduct and a DUI.
- Thirty-seven citations and eight written warnings were issued, mostly for speeding and resource issues.
- Twenty motor vehicle accidents and one vehicle/bicycle accident were investigated.
- One hundred and one traffic incidents and forty two natural resource violations were investigated.
- There were 112 other service incidents, mostly vehicle assists, lock outs and jump-start of vehicles.
- LE Rangers participated in 29 search and rescue incidents

Search and Rescue (SAR)

In 2006 park staff participated in 29 search and rescue (SAR) incidents. Nine incidents were "major" (unprogrammed costs over \$500). The majority of the SAR incidents in 2006 were carry-outs of injured visitors on trails or in backcountry areas. October 2006 saw major flooding and several back to back rescues with the night of October 6th standing out. During an intense lightning and thunder storm a litter team carried an injured male out from Devils Garden and another crew worked to rescue more than 20 hikers that were stranded on the Delicate Arch trail. Heavy equipment was utilized to ferry the hikers across the flooding wash.

Murray Shoemaker (Interpretation Division) became a member of the Grand County SAR team, and functions as liaison for ARCH. He assisted them with a body recovery in the LaSals in June. In addition, he conducted an orientation for several park employees on route up Elephant Butte and on rappelling technique.

Emergency Medical

Thirty-eight emergency medical incidents were reported and documented. A total of 21 patients were treated. Three patients refused treatment and left the park while two others transported themselves to the hospital before we were notified. Twenty-three patients required significant basic life support. Eighteen calls were traumatic in nature; 5 were medical in nature—primarily heat-related illnesses; one was related to a previous history of cardiac problems. Five ambulance and 18 personal vehicle transports occurred. The park had 6 EMS providers, including 5 Emergency

Medical Technicians and one First Responder.

Critical Incident Stress Management

Ranger Karen McKinlay-Jones assisted with Peer Support response for the State of Utah and Highway Patrol in an officer involved shooting incident.

Special Park Uses

There were 31 film permits issued for SEUG parks. The majority of the projects took place at ARCH and the Island in The Sky District of CANY. Most projects were small in scope with minimal crews with only one movie production, "Campaign Across America." At ARCH there were 28 Special Use Permits issued. Most of the permits were issued for weddings. Permits were also issued for a charity bike ride and the annual Easter Sunrise Service.

Special Events

A permit for the Lance Armstrong Foundation Charity Bike Ride to fight cancer was issued again. Local outfitter Griffith Expeditions organized the event. The bicycle entrance station was manned by Lee Kaiser, Karen McKinlay-Jones was on patrol in the LE vehicle. Jacob Tung rode a bicycle with the participants, this was a new approach by the park and was well received by the participants and was a definite plus for safety. 301 riders participated. The event was not a competition and all went smoothly.

Fee Collection The Fee Collection program is organized under the Division of Interpretation.

Entrance Station

Fees continue to be collected year around at the entrance stations; collection hours were reduced by 30 minutes, from 7:00 to 6:30 p.m., to keep in sync with the visitor center hours and provide better security for employees. The Visitor Use Assistants provided brochures and information on the park and surrounding area to 833,051 visitors during CY2006. Stan Jones was brought on in May to fill a vacancy created in the early spring.

Fee Program Review

Work continued to come into compliance on the safety and security measures recommended in the 2005 Intermountain Regional Office fee program review.

Campground

- Devils Garden Campground was entered into and included in Reserve America's top 100 campgrounds.
- The rehab of the Ranger Cache to house one set of hosts was completed in March. A shower was installed in the storage room of #3 comfort station to accommodate work groups such as the Sierra Club or fill the needs of the second set of campground hosts.

Planning

A Fee Demo project to lengthen and move the utilities on site #35, the second host site, was applied for, but the work will be done in 2007.

The camping fee of \$10 was raised to \$15 beginning Jan.1, 2006 with the Golden Age and Access fee being \$7.50. The group rate remains at \$3.00 per person per night. This does not include the reservation cost to make the camping/reservation fee a 'seamless' cost to the public. The 2006 reservation fee was \$9 for one or seven nights. A new fee of \$20/night beginning January 1, 2008 will reflect an approximate \$3.00 per night, per site reservation fee.

Interpretation and Education

Visitor Center

The first full year of operation in the new Visitor Center proved it to be an excellent visitor service facility, with few problems for staff. A total of 538,767 people entered the building, a 25% increase over the previous year (though counting visitors in the 2005 temporary facility was challenging at best). Keeping the interactive kiosks and the theater film operational were the main challenges, as any computer-based programs are inevitably down at

some point. Most problems were easily solved on-site, though one (Geology Animation) required returning the computer to the contractor for fix. The animation screen also needed repair (a cooling fan went out), which was accomplished in Grand Junction, CO by the Panasonic dealer. Due to the failure and removal of the shade structures in the visitor center plaza, the interactive trip planner designed for one of the pillars was removed.

Fiery Furnace

Fees continued to be collected from March through October for the popular Fiery Furnace Walk, under the Fee Demonstration Project guidelines. For this ranger-led three-hour long tour of a trailless area, the cost of adult tickets was raised from \$8 to \$10 this year, and children and seniors from \$4 to \$5; children six years of age and under were free. Visitors entering the area without a ranger were issued a permit and charged \$2 for adults and \$1 for children and seniors. Tours continued to fill daily, from mid-March through October, with generally positive reaction to the fee. In addition to 12,095 people on 511 regularly scheduled tours, and 1508 people on 72 special FF tours, a total of 6,744 people procured permits during the year, a 3% increase over 2006. A total of \$138,191 was collected for tours and permits. Two GS-5 term Park Guides and two GS-4 part-time seasonal Visitor Use Assistants were hired with these funds to administer the collection of fees and provide interpretive services; one vehicle's rental was also charged to this account, along with background investigations for fee collectors.

Interpretive Programs

In addition to Fiery Furnace walks, other interpretive programs presented in 2006 included:

- 234 evening programs for 7468 visitors;
- 267 guided walks with 3,323 visitors;
- 65 porch talks contacting 1,955 visitors;
- 2 special bus tours for 30 people;
- 5 attended stations contacting 241 visitors; and
- 9,717 visitors contacted on roving interpretation.

Several permanent employees developed new evening programs and guided walks, including Animal Senses and a wildflower walk.

The new Discovery film, "Secrets of Red Rock" featuring both Arches and Canyonlands National Parks, continued to be shown in the new visitor center. An accurate method of counting viewers has not been determined, but at present, we are estimating that 30% of the people entering the visitor center view the film.

Alicia Lafever completed the flower web page for the park's web site, and continues to maintain and update it. She partnered with a photographer (Al Schneider) to utilize additional photographs and with a botanist (Michael Charters) to utilize information about scientific names of plants.

The eight-minute orientation video continued to air locally on a closed-circuit system to twelve major hotels in Moab, reaching over 500,000 visitors with park specific information; funding was provided through CNHA aid this season to run the program.

In 2006, Canyon Country Outdoor Education conducted 26 field trips into Arches National Park, bringing over 780 participants into the park. Each class also received a pre-trip and post-trip presentation in the classroom. Field trips focus on a cultural or natural history topic that ties park resources to state core curriculum.

Planning

Allen participated in planning for the Alternative Transportation Plan, Core Operations Analysis, and the Delicate Arch trail repair/replacement, and contributed to the Environmental Assessment. Murray Shoemaker was selected as the park's Accessibility Coordinator, and contributed comments and suggestions to several projects which were completed during the year.

GPRA Surveys

The interpretive staff distributed 400 visitor surveys as part of the GPRA process in April, at various locations throughout the park. Results of the 26% response rate showed that 100% of visitors were satisfied with the park's

services, facilities and recreational opportunities, same as 2005. In response to the significance question, there was a 21% response rate from the total distributed, and an 82% response rate of those returned; of this, 96% of visitors understood and appreciated the significance. Assistance from park employees was rated at 97% satisfaction (from 98% in 2005), visitor center at 99% for the new facility (up from the 53% in 2006 when the temporary facility was in use, and up from 91% in 2004), ranger programs at 85% (down from 93% in 2004, but caution note as less than 30 responses), park map down to 96% from 97%, and opportunities to learn about nature, history or culture up from 90% to 96%. The survey in 2006 was conducted in April, the same month as in 1999-2005.

Cooperating Association Activities

Chief of Interpretation Diane Allen continued in her role as the Canyonlands Natural History Association (CNHA) liaison for the NPS. In this capacity, she attended Board meetings, as well as committee meetings, and prepared the annual aid request package.

CNHA continued to be successful, with revenue for calendar year 2006 at over \$2.588 million for the entire association; Arches accounted for 53% of CNHA's total sales, up from 46% last year. A number of new titles and products, as well as improved sales area management, contributed to this success. Popular new sales items included wildlife hand and finger puppets and a Delicate Arch cross-stitch kit. T-shirts continue to be a big seller, accounting for 8% of the association's total sales. Firewood was sold in the campground in summer and the visitor center in winter, and proved to be very popular with campers. Overall, the National Park and regional category of book sales was very strong.

Aid returned to ARCH specifically totaled over \$59,150 for free publications, SCA volunteers and resource management assistance. In addition, \$16,500 was granted to the SEUG interpretive efforts and \$7300 to SEUG Resource Management activities, some of which benefited Arches. Additional assistance was provided in the form of staff in the visitor center, who also assisted visitors with trip planning and general orientation.

Partnerships

Arches NP maintains 6 community partnerships through agreements in place via the NPS Southeast Utah Group: Canyonlands Natural History Association; Medical Advisory Services; Natural Resource Projects – Utah State University Conservation Corps; Natural Resource Projects - State of Utah Forestry, Fire & Lands; Natural Resource Projects - Four Corners School; Law Enforcement – Bureau of Land Management. In addition there are 3 Arches NP specific agreements: Law Enforcement Dispatch - Grand County, Utah; Interagency Agreement - Northern Colorado Plateau Network Inventory & Monitoring Program; task agreement under Regional Cooperative Agreement with the American Conservation Experience (ACE) corps.

Activities/Community Relations

Superintendent Laura Joss represented the park at meetings of the Moab Chamber of Commerce, Grand County Council, Grand County Trail Mix group, Grand County/Moab Area Economic Development Committee, Grand County Emergency Response Team, Canyon Country Partners, Utah Outdoor Recreation Task Force and the Moab Rotary Club, serving as the club's Secretary.

Resource Management and Visitor Protection Ranger Karen McKinlay-Jones participated in the local area Extreme Safety program. The ranger and interpretation staff all work very closely with Grand County Search and Rescue and participated in a number of SARs outside the park.

Interpretation Ranger Murray Shoemaker served as Public Information Officer on four assignments with Brunner's Eastern Great Basin Interagency Management Team. He also rated an Education Specialist cert for another park and functioned as his homeowner's association president. Interpretation employee Sharon Brussell is working with the Tamarisk Coalition on education and public information. Sharon also stepped in to fill the Humane Society of Moab Valley's president position; Net Hettman assisted with bookkeeping; and Diane Allen served as liaison between the HSMV Board and the City on construction of an animal shelter.

Staff from all divisions participated in an annual cleanup of Highway 191 adjacent to the park boundary.