Highlights for FY 2013 Denali National Park and Preserve

(* indicates action items for A Call to Action or the park's strategic plan)

This year was one of changes and challenges, including from the weather. The changes started at the top, with the arrival of new Superintendent Don Striker in January 2013. He drove across the country to Alaska from New River Gorge National River in West Virginia, where he had been the superintendent for five years. He also served as superintendent of Mount Rushmore National Memorial (South Dakota) and Fort Clatsop National Memorial (Oregon) and as special assistant to the Comptroller of the National Park Service. Some of the challenges that will be on his plate – implementing the Vehicle Management Plan, re-bidding the main concession contract, and continuing to work on a variety of wildlife issues with the State of Alaska.



Don meets Skeeter, one of the park's sled dogs

The park and its partners celebrated a significant milestone, the centennial of the first summit of Mt. McKinley, with several activities and events. On June 7, 1913, four men stood on the top of Mt. McKinley, or Denali as it was called by the native Koyukon Athabaskans, for the first time. By achieving the summit of the highest peak in North America, Walter Harper, Harry Karstens, Hudson Stuck, and Robert Tatum made history. Karstens would continue to have an association with the mountain and the land around it by becoming the first Superintendent of the fledgling Mt. McKinley National Park in 1921.

*A speaker series featuring presentations by five Alaskan mountaineers and historians on significant Denali mountaineering expeditions, premiered on June 7thwith an illustrated talk on the 1913 Ascent of Mt. McKinley. Other 1913 Centennial activities included new summer exhibits at the park's Eielson Visitor Center and the Talkeetna Ranger Station (which was renamed the Walter Harper Talkeetna Ranger Station in September 2013 to honor Harper). The park's cultural resources chief, Amy Craver, worked with the Museum of the North, University of Alaska Fairbanks to create a special exhibit about the climb, which was on display at the museum from May 2013 through April 2014.

Descendants of all four of the 1913 expedition members made their own attempt to reach the summit, participating in a guided climb that followed the historic route pioneered by their ancestors on the north side of the mountain. Dana Wright, great grandnephew of Walter Harper; Ken Karstens, great grandson of Harry Karstens, Sam Alexander, representing the Gwichin people of Fort Yukon and the spirit of Esaias George and John Fredson, and Dan Hopkins, great grandnephew of Hudson Stuck, made it to the summit. Sam Tatum, great grandnephew of Robert Tatum, had to turn back early in the expedition due to bad blisters, and altitude sickness prevented another Karstens great grandson, Ray Schuenemann, from summiting.



Dana Wright, Ken Karstens, Sam Alexander and Dan Hopkins on Denali summit - June 28, 2013

*The NPS signed a Memorandum of Understanding with the National Outdoor

Leadership School to provide assistance and support to Expedition Denali, the first all African-American team, during their attempt to summit Denali to mark the centennial of the first summit. Their ultimate objective was to inspire people of all colors, young and old, men and women, to become more engaged in the outdoors. As part of their outreach they toured classrooms and urban areas sharing their experiences prior to and after their expedition. A highly unusual lightning storm turned the team around less than 1,000 feet from the summit, but their mission to engage lesser represented populations in outdoor recreation continues. A film documenting their journey will debut in 2014.

There were numerous lightning-caused fires in the park this summer. While the acreage burned was not higher than in some years, the close proximity of the fires to developed areas was. Late on June 25th, a storm cell moved through the western area of the park and ignited two small fires near developed areas - one near the Wonder Lake Campground and the other close to private lodges in Kantishna. Fire managers immediately responded with resources to aggressively fight these two starts, which included the deployment of smokejumpers and the use of four water scooping aircraft and a helicopter to drop water on the fires (getting water from Wonder Lake!). Other large fires burning north of the road produced plenty of smoke, impacting employees and visitors at Toklat and the Eielson Visitor Center.



Air tanker dropping water on Brooker Mountain Fire in Kantishna – photo by Stacey Skrivanek

A potentially far-reaching piece of legislation, the Denali National Park Improvement Act, P.O. 113-33, was passed by Congress on September 18, 2013. This legislation, introduced by all three of the Alaska delegation, gives the NPS the authority to issue a right-of-way (ROW) for a natural gas pipeline through the park. The pipeline (more than one) and its route has been an ongoing source of debate between different factions in the state for the past several years, and the issue continues to be discussed by the factions involved. The bill also authorizes the NPS to do a ten-acre land exchange in with Doyon Ltd so that a small hydroelectric plant can be built to help provide power for the Kantishna Roadhouse. The NPS has been supportive of this land exchange as it would resolve land issues around the lodge, provide a sustainable source of fuel for the roadhouse, and reduce truck traffic needed for fuel deliveries. The legislation also changed the name of the Talkeetna Ranger Station to the Walter Harper Talkeenta Ranger Station to honor Walter Harper, a Native Alaskan who was the first member of the 1913 Karstens Stuck Expedition to set foot on the summit of Mt. McKinley. The park's Special Projects crew was able to get the sign made and installed by mid-December, ready to greet mountaineers and visitors coming to the station in 2014.



To end the year (technically the beginning of the next fiscal year) the park was closed from October 1 - 16, 2013 due to the federal government shutdown, the first since 1996. While most of the staff were furloughed due to lack of appropriated funds, several employees worked throughout the shutdown, as their positions or specific job duties were deemed essential to maintaining park infrastructure or providing emergency services. Everyone was back at work on October 21st.

Administration

The National Park Service implemented the Financial and Business Management System (FBMS) and the fourth version of the Administrative Financial System (AFS4) in FY13. FBMS implementation touched many aspects of administrative work – budget, travel, procurement, housing, labor, and project funding. Denali hosted an FBMS field training course and three employees were FBMS trainers. FBMS came online in January 2013, which kept the NPS in a blackout state for the first three months of the fiscal year.

In October 2012 the Office of Personnel Management approved the ANILCA Local Hire policy. From 2010-2012 the park used an excepted hire policy while OPM and Alaska Region rewrote the Local Hire policy. The park started using the new Local Hire policy for seasonal positions in December 2012. In order to reach employees hired under the excepted hire policy, the park announced 78 positions through the new Local Hire process.



Admin staff left to right: David Burrows, Michelle Kovach, Laura Lasell, James Tench, Keli Mueller, Stacey Oaks, Kathleen Przybylski, Christopher Infante, Janie Lasell, Bonni Burnell, Kathleen Kelly

The National Park Service completed the transition from Lotus Notes to Bison Connect (Google mail) in FY13. The transition was bumpy, but, as usual, employees took it in stride.

Denali National Park and Preserve benefitted from the work of 484 volunteers, who contributed 56,105 hours of work to the park. Volunteers worked with all park divisions to accomplish projects and program support.

Commercial Services

The division was challenged by being short staffed, due to the departure of Chief Mark Charpentier for a new position in Maine just prior to the summer season and Fee Collection Supervisor Jasmine Horn also leaving when her husband accepted a new job. Concessions Management Specialist Jim LeBel was designated as Acting Chief, and managed the division's workload, which included the development of the prospectus for the next transportation contract, the largest and most complex of the park's concession contracts. *While not complete, significant work was done by the park, Alaska Region, and WASO on all portions of the prospectus, with a release now expected in July 2014. In order to accommodate the delays in the prospectus development, the park extended the current transportation contract with Doyon/ARAMARK Joint Venture for a third year. It will now expire on December 31, 2015.

*Two hybrid buses funded through a grant from the Federal Transportation Authority (FTA) arrived at Denali in May 2013. They were used on a variety of runs to destinations throughout the park. Data, including statistics on fuel economy and noise emissions, is being collected and will be compiled to help inform future bus specifications.



Hybrid bus

The park began a five year pilot program to open the Park Road as far as the Mountain Vista Rest Area (Mile 12) by mid-February in order to provide increased access for winter visitors. This is a month earlier than in previous years. In November 2013 the division announced the availability of Commercial Use Authorizations (CUA) to provide vehicle tours on the park road as far as the rest area, a new winter commercial activity. Two CUAs were issued. The park plans to discuss client interest and any changes that should be considered for next winter's operation with these operators.

Interpretation

Winter sled dog patrols covered over 3,200 miles. Kennels staff worked with several divisions to support a variety of projects:

- Transport fire crew to remote Parker cabin in Kantishna to burn pile of woody debris from hazard fuel treatment project at cabin
- Assist law enforcement rangers with re-marking north boundary, removing abandoned van from Stampede area, and spring southside snowmachine patrol
- Transport supplies for southside mountaineering ranger patrol
- Transport and install Traleika glacier monitoring equipment and collect scat for mesocarnivore research.

A multi-division committee reviewed the safety of the summer sled dog demonstrations, which included input solicited from all park employees. Major changes were agreed upon and will be enacted and tested in FY14.

*As it is difficult, if not impossible, for many teachers and students to come to the park, Denali has created new free, interactive, distance learning programs to help classes



learn about this special place and enhance existing curricula.

The educators at the Murie Science and Learning Center (MSLC) teleported themselves via Skype into 3rd – 6th grade classrooms across the United States to present fun, standards-based science lessons. During the winter of 2013 – 2014, three programs were delivered

to over 3,000 students in 24 states: *The Science of Sled Dogs* uses the furry inhabitants of Denali's sled dog kennels to teach concepts of anatomical, physiological, and behavioral adaptations; *Denali Geology* teaches concepts of plate tectonics, weather, and glacier dynamics using North America's tallest mountain as an enormous prop; and *Ask an Alaskan* encourages students to ask whatever questions they have about surviving and thriving in Alaska. All curricula have written lessons and activities for teachers available for download at <u>www.nps.gov/dena/forteachers/learning</u>. Teacher and student feedback has been overwhelmingly positive and demand for the programs increases by the month. The MSLC education team is pleased to declare the Distance Learning program a success and a staple winter offering for the foreseeable future.

The media specialist engaged visitors through several new digital outreach initiatives -"You Tell Us," a visitor interview video series; "Your Denali Story," a telephone line that allows visitors to record audio stories about their park experience; and "NPMap" capacity for interactive maps on the park website, which led to online real-time tracking of winter sled dog patrols.



Entrance to 1913 Centennial Exhibit at Eielson Visitor Center

*In partnership with Alaska Geographic and working with the park's cultural resources staff, the media branch designed and installed a special exhibit at the Eielson Visitor Center and the Walter Harper Talkeetna Ranger Station to commemorate the 100th anniversary of the first summit of Mount McKinley.

Maintenance

It is a challenge to maintain or repair facilities in the harsh climate of interior Alaska, but this year provided additional difficulties with significant snowfall continuing into late May, combined with a sudden, rapid warmup over Memorial Day weekend. The park's spring road opening crew had to re-plow sections of the road several times due to the continued snow, which slowed down the westward plowing operation, and opening





Raging current tearing at park road at Mile 20-22 and resulting damage

facilities for the summer visitor season. Crews rapidly responded over the Memorial Day holiday to the extensive flooding caused by the rapidly warming temperatures, which saved the road from washing out in several places. But afterwards there were only minimal traffic delays and road closures as crews worked to repair the resulting damage.

Work on the replacement of the Rock Creek Bridge with a large culvert (and eventual removal of the current bridge) began. The project was intended to take only one season, but the late spring and other difficulties delayed the construction, so work will continue through summer 2014.

*Other construction projects fared better. The park's Special Projects crew completed construction of the CLA Maintenance Building and turned it over to the JV for use. This is the largest building constructed in the park using NPS staff. The crew also completed the restoration of P26, one of the Mission 66 housing units at park headquarters, to its historic fabric.



Restored Quarters P26

They had begun the rehabilitation of another historic housing unit P22, but found that the historic fabric of the log portion was in much better condition than anticipated. With the approval of the Region and WASO, the crew removed the historic log portion of the structure and stabilized it so it could be placed back near its original location and restored. Construction of a new structure for quarters was started on the site and is continuing into 2014. The crew also completed the re-construction of the Toklat Auto Shop.

Park visitors now have the opportunity to explore the completed the Savage Alpine Trail, a four-mile trail that traverses the Outer Range between the Savage River and the Mountain Vista Rest Area, offering spectacular views of the Alaska Range and the surrounding landscape. The trail crew also began the rehabilitation of the very popular Healy Overlook Trail, which included the removal of old culvert and other debris from Hotel Creek (near the beginning of the trail).



Trail crew on upper portion of Savage Alpine Trail

B&U has been repeatedly challenged in reopening entrance area facilities in the spring because of frozen water lines. This year the crew installed a new water main to service the Denali Visitor Center campus area, replacing the undersized, damaged and unreliable line. The new line provides proper flow ratings and allows the fire suppression systems in the buildings to be certified.

Other significant accomplishments included the replacement of the high voltage electrical line to the Mt. Healy repeater site (needed for emergency and other radio communications within the park), and finalizing operating procedures for the new entrance area wastewater treatment plant in order to bring the effluent into compliance with discharge permits.

In late October 2013 road crews responded to a road emergency – a massive landslide was discovered blocking the park road at approximately Mile 37, on the section of road between Tattler Creek and Sable Pass. The slide was estimated to be around 30,000 yards of rock and soil, covered approximately 200 feet of the road up to 35 feet deep in debris. The material was released from a point 500 feet above the road, and flowed south below the road. It did not reach Igloo Creek. Once the slide area was thorough assessed for stability, crews went to work to clear the road before winter storms and cold temperatures prevented any work until the spring. While initially it was thought that it would take a week to clear, crews completed the work in four days.



Landslide as viewed from across the valley

The trigger for the slide remains unknown. Ground, aerial, and satellite imagery of the site in the years and months before the event indicate that a small slide had previously occurred here, groundwater seeped from the area, and the ground was beginning to move slightly. In the days preceding discovery of the slide, the area was experiencing temperatures that fluctuated near the freezing point. Forces associated with the expansion of ice during the repeated freezing and thawing of water near the surface may have triggered the slide, but other triggers are also possible.

In the spring, when the ground thaws, additional activity at the slide can be expected, and a ditch to capture these materials has been excavated. Denali staff has already begun the process of analyzing other sections of the park road for similar problems so that potential hazards can be mitigated.

Planning

The Planning and Compliance team completed the Improvements and Additions to Horseshoe Lake Trail Environmental Assessment which addresses resource issues and damage caused by social trailing on the most frequented trail in Denali's Entrance Area. The project will also expand accessibility and visitor opportunities on the trail.

An Environmental Assessment (EA) evaluating draft alternatives for plowing the Denali Park Road beyond park headquarters during the winter was released for public comment in mid-February 2013. The NPS considered different options for plowing the road as far as the Mountain Vista Rest Area (Mile 12) in order to provide vehicle access to an additional nine miles of the road and increase the range of recreational opportunities available to winter visitors. The Finding of No Significant Impact was issued in June 2013. The preferred alternative was selected, which will allow the NPS to plow the park road, beginning in mid-February 2014, as far as the Mountain Vista Rest Area for a 3-5 year trial period.

The team also completed the necessary compliance for installations in wilderness after a lengthy trial period of new technologies. This project will improve communication with the public on the park's radio repeater, wireless repeater, and weather station installations.

The team served on numerous interdisciplinary teams with the regional office. Most notable was the collaborative effort with the State of Alaska to determine a route for a potential natural gas pipeline on the highway corridor within park boundaries.

Rangers (Visitor and Resource Protection)

In Fall 2012 the division, working closely with the Resource Management Division, began to draft a "State of the Backcountry Report" to document the implementation of the Backcountry Management Plan, wilderness character indicators, and other current and relevant data. Backcountry is defined as "all park and preserve lands, except the park road corridor and adjacent development zones and backcountry day use areas..."



page iii of the DENA Backcountry Management Plan (National Park Service 2006). The final draft was the culmination of an interdisciplinary effort involving all park divisions and was presented to park management in Fall 2013. It supports the park's State of the Park Report and sets a new precedent for documenting the park's actions toward implementation of the Backcountry Management Plan and the current condition of the Denali Wilderness and Denali's Backcountry. It is hoped that the final Report will be published for public distribution. 2013 was a productive year for wildlife protection efforts in Denali National Park and Preserve. Building on the success of new strategic, focused patrols in 2012, efforts in 2013 were developed further and even more effective. North and south side rangers came together as a single work force to conduct extended operations throughout the year, meeting specific objectives for targeted areas and activities.

Rangers established winter base camps for the first time in many years. This allowed for more efficient patrols with longer coverage throughout the day in the backcountry and deeper areas of the park being patrolled. This technique was used to monitor winter snowmachine use and as well as supporting enforcement efforts during spring bear season, allowing for increased visitor contacts and NPS presence further within the park. Additional work projects assisting the Resources Division and research projects were also accomplished, providing a dual function to the patrol efforts.



Investigative work continued in 2013 related to an illegal 2012 hunt and taking of two moose in the park in the Kantishna area. The investigative work included cooperation and collaboration between Denali, other parks and federal agencies, state wildlife troopers, and the Assistant US Attorney's Office. Three hunters entered plea agreements as a result and the park received \$15,000 restitution to provide increased protection in the future. This case also highlighted the stewardship that inholding land owners have toward park resources through their participation in the investigation.

The preplanned fall hunt operation spanning the entire fall season allowed all rangers to participate and resulted in consistency with hunter contacts because of the single operation objectives. These proactive and strategic hunting patrols increased positive

educational contacts, increased sharing of knowledge of the actual hunting activities, and resulted in effective, positive NPS presence.

*As part of the commemoration of the 1913 Centennial climb, the Visitor and Resource Protection division coordinated a parkwide effort to collect non-historical garbage on the Muldrow Glacier. The Muldrow Glacier was the route utilized by the four pioneer climbers who were the first to stand on the mountain's summit on June 7, 1913, and for the mountaineers who attempted the peak during the following decades.

Low snow levels on Denali's glaciers this summer presented the National Park Service with a rare opportunity to clean up the trash and equipment left on the Muldrow Glacier by previous mountaineering expeditions. High temperatures caused a high level of



glacial melting, and mountaineering rangers saw ice that had not been previously exposed on the glacier. Other cleanups of the Muldrow had taken place in 1982 and 1990.

In order to take advantage of good weather conditions and the availability of mountaineering rangers at the conclusion of the mountaineering season, a cleanup plan was developed and implemented in a short time frame. On July 14, a dozen park employees from several divisions and work groups were flown to Gunsight Pass, located below the Lower Icefall on the Muldrow Glacier. Their directions were to remove obvious trash, but leave in place items that appeared to be 30 years old or more, which they would document with GPS and photographs. Over the course of the two days the teams moved down the

glacier, putting trash in piles and documenting several historical gear caches, including one from Bradford and Barbara Washburn's 1947 expedition. (Barbara became the first woman to summit Denali during that expedition.) Items deemed to be historically significant by the archeologist, including the Washburn cache, were left in place on the surface of the glacier.

The teams retrieved an estimated 200-300 pounds of debris from the glacier, mostly modern, culturally insignificant material. Items included burlap sacks, plastics, and Spam cans, in addition to abandoned gear such as skis. Approximately 60-80 pounds of the trash was removed by helicopter during the cleanup operation. The remaining debris

was piled at two locations, to be picked up by the park's sled dog teams during a winter patrol.

Another goal of this interdivisional effort, provide an opportunity for park staff that normally are separated by a mountain range to work together and learn from each other, was a success as well. As one participant wrote – "I learned so much from spending a few days on the ground together, trying to understand how different work groups view the same task and how to best accomplish it. It is nice to see so many employees so genuinely passionate about what we do and how we do it."

Resources – Cultural

*Mountaineering history was highlighted this year as the centennial of the first ascent of Denali was celebrated. Exhibits at Eielson Visitor Center and the University of Alaska Fairbanks' Museum of the North each showcased objects from the park's collection - an axe and crampons used by the Sourdough Expedition of 1910 (DENA 1636 and DENA 405) along with the thermometer carried by Hudson Stuck (DENA 388) during the 1913 ascent. Visitors may still read about the story and see related images at the American Alpine Club's Explore Special and Digital Collections website. To see the online exhibit, visit: <u>http://explore.americanalpineclub.org/</u> and click on "Denali '13".



Hudson Stuck thermometer (toward front of case)

Park archeologist Phoebe Gilbert surveyed 400 acres for archaeological sites in 2013, most during Section 106 compliance reviews. Twenty-six new archaeological sites were located and recorded during this survey work, and 10% (32 of 296) of the known sites in the park underwent site condition assessments. While this summer's survey work increased the number of known sites in the park by almost 9%, this is likely only a small

fraction of the number of actual sites in the park. To date, less than 1% of the park has been surveyed for archeological resources.

*The Cultural Resources Division helps preserve and protect the archaeological, historic, and other cultural resources of the park for the benefit and enjoyment of current and future visitors. One of the best ways to do this is by educating young people about these unique resources so that they can become future stewards and guardians. The park archeologist, in conjunction with the MSLC and the Upper Susitna Soil and Water Conservation District, facilitated a five-day field school in July 2013 at a historic archeology site located on an NPS-owned lot near the ranger station in Talkeetna. During the field school local high-school students learned about cultural resources, basic archaeological excavation techniques, and the history of the area. The purpose of the field school was to document and investigate the history of the site and its significance for listing on the National Register of Historic Places, educate area high school students about the history of their town, and engage the public in archaeological research.



Student excavating an enamel bowl

Several hundred artifacts were excavated during the short dig, many of which are diagnostic and helped narrow down the age range of when the site would have been used. The artifacts also give clues as to what the site may have been used for. One of the most interesting artifacts recovered is a carbide miner' lamp. The brass lamp, which was made in 1925, would have been attached to a hard hat. Other interesting artifacts were several glass bottles, two glass beads, moose bones, and an enamel bowl, all of which date to the 1920's and 1930's.

The week culminated with a public presentation during which the students presented what they learned and displayed the artifacts that they recovered from the dig.

Resources – Natural

Resources staff completed some significant guiding documents, including the first *State of the Park* for Denali, the first State of the Backcountry Report (in conjunction with Visitor and Resource Protection), and the first Vehicle Management Plan (VMP) Indicator Monitoring Report.

The park hired Steve Arthur as its new Biological Program manager, filling the vacancy created by the untimely death of wildlife biologist Tom Meier in August 2012. Steve had worked as a research wildlife biologist for the Alaska Department of Fish and Game since 1996, based for most of those years in Fairbanks. He also held research ecologist and research wildlife biologist positions with the U.S. National Biological Survey and the U.S. Fish and Wildlife Service in Anchorage. He received his Ph.D. in wildlife resources from the University of Maine.



The Botany Program has had six peer-reviewed publications come out in the past year, concerning issues as diverse as bryophyte and vascular plant foristics, lichen/caribou forage distribution, tree dynamics on a landscape-scale and the influence of climate on spruce reproduction over 25 years in Denali. Other publishing credits go to the park's avian ecologist, Dr. Carol McIntyre – *Accounting for incomplete detection: What are we estimating and how might it affect long-term passerine monitoring programs*?

During summer 2013, seasonal park interpreter Daniel Leifheit discovered the first fossil footprint of the dinosaur Edmontonia near Sable Pass.



This dinosaur was a bulky, armored, herbivorous member of the nodosaur family, approximately seven meters long and two meters tall. Additional Edmontonia tracks were soon located by Dr. Tony Fiorillo of the Perot Museum of Nature and Science and his crew during their previously scheduled fieldwork season in the park. This new and exciting addition to what is known about the park's prehistoric denizens will be included in a new mural that will be installed in the Murie Science and Learning Center during the winter of 2014 that depicts life of the Cretaceous Period in what would later become Denali National Park and Preserve.