



BLM ALASKA FRONTIERS

Issue 95 • Spring 2005

News about BLM-managed public lands in Alaska



Revised NE Petroleum Reserve plan under review

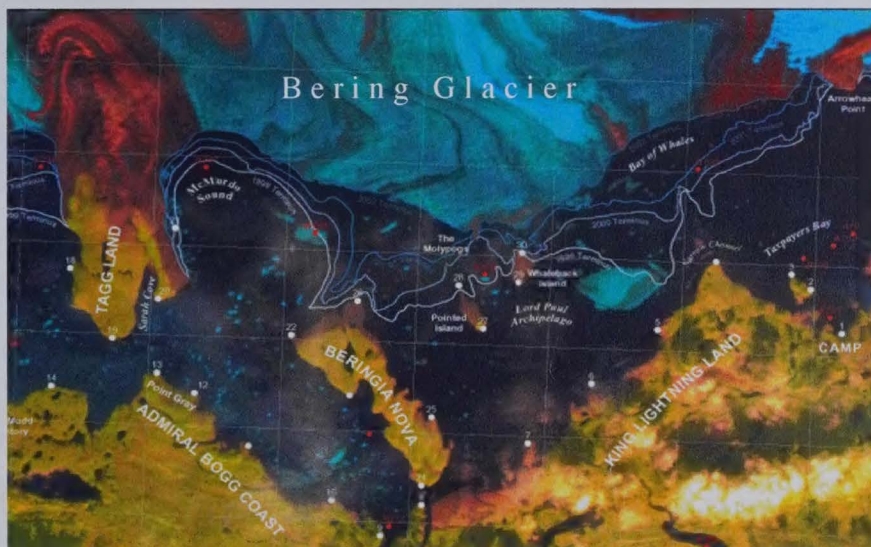
In late January, BLM released its preferred alternative for amending its 1998 plan for the Northeast National Petroleum Reserve-Alaska. The agency's new proposal opened 629,000 acres to regulated winter exploration, but also contained a number of provisions aimed at protecting areas with sensitive biological values including:

- deferring leasing on 211,000 acres including Teshekpuk Lake;
- applying no surface occupancy restrictions on 217,000 acres north of Teshekpuk Lake, on 16,000 acres east of the lake and 141,000 acres south and southeast of the lake for a total of 374,000 acres;
- expanding subsistence consultation requirements to the entire planning area;
- adding setback restrictions along the Ublutuok (Tingmiaksiqvik) River.

BLM received a number of significant comments following the plan's release. "We are carefully reviewing our proposal in view of the information we received in the past 30 days and we hope to announce a decision in the near future," said BLM State Director Henri Bisson. A Record of Decision must be signed in the Interior Department before any changes take effect. Secretary of the Interior Gale Norton visited the petroleum reserve in early March to review winter drilling operations and also met with local government officials and residents in Barrow (photo on page 12). Check www.ak.blm for late-break- ing developments.

SPECIAL ISSUE

Science on the Public Lands



Scientists used this modified Landsat 7 satellite image of the Bering Glacier to map glacial surges and retreats.



Why are researchers interested in a previously-unknown population of harbor seals at BLM's Bering Glacier? Find out more about this unusual research camp... At the Tip of the Icebergs... on page 3.

Smile! You're on Salmon Cam

Counting migrating salmon in the wind and rain used to be a rite of passage for Alaska's fisheries biologists. Now it may be possible to do the counting from a comfortable chair in a cozy office.

Last summer, Northern Field Office fisheries biologists installed video equipment for an innovative salmon-counting study on Caribou Creek, a tributary to the Hogatza River. The Hogatza, which joins the Koyukuk River 33 miles west of Hughes, has historically been one of the Koyukuk basin's most productive streams for summer-run chum salmon.

NFO fisheries biologist Carl Kretsinger explains that the Caribou Creek project is testing a new option for assessing salmon runs without the costs and logistical challenges of staffing a weir or counting tower during the entire duration of the run. "We're hoping to find out if these cameras are a cost-effective way to count salmon on rivers we haven't yet monitored," says Kretsinger. "This may also be an affordable way to extend the duration of some of our projects."



Video capture of salmon swimming past one of the cameras.

Two video cameras were installed on towers above the creek. The video system, similar to those used for security in banks and stores, worked "24-7" to photograph salmon swimming over a white panel placed on the streambed. The footage was stored in digital format in a solar-powered computer.

Biologists at a nearby project occasionally stopped to check the condition of the weir, cameras, and data storage device. Otherwise, the video system ran itself.

Aside from one electrical problem, the system worked well its first year. The fully digital setup was

able to store far more data than an earlier test project using videotape, and a repositioned camera lessened problems with glare from the water surface.

The hardest part of the project is now underway. "Now we're going to find out how tedious it is to review what we got," says Kretsinger. "It takes us about 6 minutes to review an hour of digital video data and we have 867 hours to review," he said.

That's a lot of hours in front of the screen waiting for salmon to swim by, with only occasional glimpses of a beaver or maybe a floating log to spice things up. Kretsinger estimates it could take three months to finish reviewing the data.

To increase accuracy of the count, two-person teams count fish for no more than a few hours at a stretch and then compare their counts. The salmon's species and direction of travel (upstream or downstream) are recorded in half-hour increments.

The data from the current setup is not sufficiently detailed for biologists to record sex and size of the salmon, but Kretsinger says he may try underwater cameras to obtain higher-resolution imagery that may provide this data as well.

NFO fisheries biologists are also interested in testing software that may be able to recognize the shapes of swimming salmon and count fish automatically, eliminating those tedious hours in front of the screen.

—Craig McCaa



View of the project on Caribou Creek. Cameras are mounted on the horizontal arms hanging over the stream from the right and left.

BLM's Bering Glacier research camp discovered...

SCIENCE
— ON THE —
PUBLIC
LANDS

At the tip of the icebergs

Although glaciers are in retreat around the world, scientific interest in Alaska's Bering Glacier is advancing at a rapid rate—some would say surging. If there were any doubts that the Bering has achieved international recognition, those doubts melted away last month when BLM hosted its third annual Bering Glacier conference and workshop in Anchorage. Representatives and researchers from government agencies and universities reported on some of the results from their ongoing studies and announced future research plans.

This summer, researchers will be coming from as far away as England to conduct a variety of studies in hydrology, botany, glacial geodynamics, and fisheries. Also, a consortium of 10 institutions led by the University of Utah and University of New Orleans will participate in a \$5-million, 5-year study of plate tectonics and global climate change sponsored by the National Science Foundation.

This one glacier, North America's largest, holds about 15-20 percent of Alaska's total glacier ice in its 118-mile-long, 2,200-square-mile mass. It has surged at least five

times during the 20th century alone, most recently from 1993 to 1995. A rapid retreat followed, expanding Vitus Lake at the glacier's terminus, revealing a dynamic landscape of invertebrate fossils, lake sediments and remnants of previously overrun forests. The new habitat is being colonized by a wide variety of plants and animals, all of which are of interest to researchers for a variety of reasons.

Alaskan researchers know about the Bering, too. Marilyn Barker, University of Alaska faculty member and botanist, has been coming out to the glacier since 1999 to inventory

its botanical resources. Her team has discovered four exotic species near Vitus Lake and identified more than 350 vascular and nonvascular species.

Anne Pasch, University of Alaska-Anchorage emeritus professor of geology returned in 2004 to continue her paleontological research on invertebrate fossils. She says the glacier foregrounds support highly diverse groupings of invertebrate species. She also concludes that an ancient shoreline existed to the north of the glacier 7,000 years ago and it may have provided a migration route for prehistoric people.

*—continued
on page 5*



The camp provides an informal setting for researchers to share information between disciplines.

Photos by
Dennis R. Green

Something special in the future?

Information coming from the Bering Glacier studies has been extremely helpful to planners in BLM's Glennallen Field Office who are developing its East Alaska Resource Management Plan. The glacier lies within the planning area and important issues include the management of vegetation, special species, and fish and wildlife.

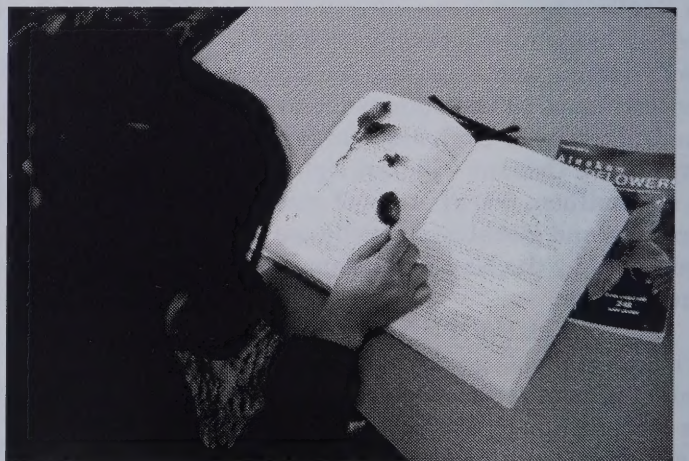
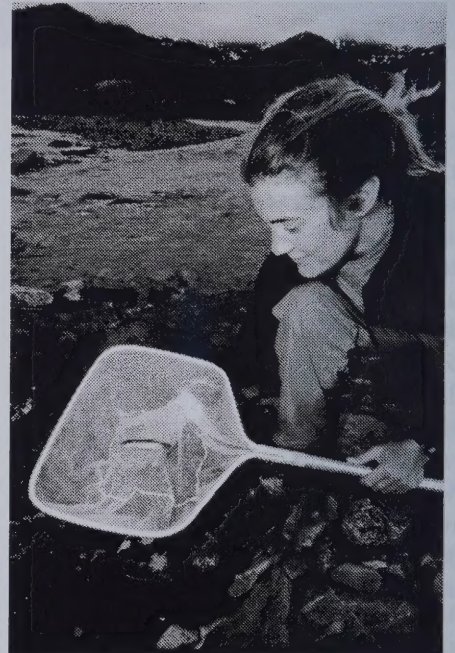
BLM's preferred alternative (Alternative D) in the draft plan endorses designating about 827,000 acres of the Bering Glacier and surrounding area as a Research Natural Area (RNA). The RNA would preserve the glacier's natural ecosystems for comparison with those influenced by man. It also would provide educational and research areas for ecological and environmental studies and preserve gene pools of both typical and endangered plants and animals. "This designation is typically used by BLM to guide management of unique ecosystems to keep them in tact for study," says planning team leader Bruce Rogers, "and there is a broad consensus internally in BLM that this area merits this designation."

Alternative C proposes a 940,000-acre RNA by including lands currently under State selection. If the State of Alaska obtained these lands in the future, the designation would not be binding, "but we would hope the State would follow a compatible course of action. Portions of the Yakataga State Game Refuge are adjacent to the Bering Glacier, so the State is aware of the biological values in the area," says Rogers.

The area is extremely remote and there does not appear to be any significant conflicts with other resource uses, so Rogers is hopeful the future of the Bering will proceed as outlined in the draft plan. "If the final RMP makes the recommendation for designation and it is approved by the BLM-Alaska state director, we would then develop an implementation plan, probably some time next winter. This more detailed plan would further define allowed uses in the context of the broader RMP. We would then do an environmental analysis that would include provisions for public comment," says Rogers. If the Bering passes all these steps, the RNA designation could become a reality about a year from now. Either choice would make the Bering the largest, and some would argue most impressive, Research Natural Area in BLM, dwarfing the next largest, Oregon's 37,000-acre Jordan Craters.



(above) The retreating glacier exposed several ancient forests that had been buried in the ice for hundreds of years. (center) Fisheries studies are documenting how a new habitat becomes colonized. (bottom) Botanical studies have documented 378 species surrounding the glacier, 44 of which are outside their previously-known range.



At the tip of the icebergs

—continued from page 3

For the last 11 summers, BLM has participated at the research base camp, gradually assuming additional responsibilities. BLM has been the lead sponsoring agency for the past eight years, operating the camp, coordinating transportation and scheduling the study teams so scientists, educators and others from around world can study. The camp, located near Vitus Lake, operates for a short six weeks in July and early August in undoubtedly one of the most beautiful and special places managed by BLM.

—Edward Bovy and Danielle Allen

Studies and more studies

Sometimes you may hear about a study and wonder why anyone would want to spend all the time, effort and money to find answers to a seemingly-obscure question. Take for instance a study titled “Holocene sea-level changes and earthquakes around the Bering Glacier.” Why would Sarah Hamilton and Ian Shennan come all the way from England’s University of Durham to study microscopic algae called diatoms as part of this project? For one thing, they are trying to apply the results to determine long-term patterns of earthquakes and their potential for generating tsunamis. Now think about the 1964 Alaska earthquake where most deaths were in our coastal communities. Now think about the recent Indian Ocean quake and you begin to connect the dots. Their study is financed by a grant made through the North Atlantic Treaty Organization (NATO).

Another study, “Seasonal trends in harbor seal abundance” by Danielle Savarese and Jennifer Burns of the University of Alaska-Anchorage, offers another project of major interest to Alaskans. Researchers have discovered that about 150 previously unknown harbor seals may reside at the glacier. This population shows high genetic diversity and researchers want to know more about them. The information could fill a large data gap for seals along the isolated coast. The project complements the Alaska Native Harbor Seal Commission’s partnership with the National Marine Fisheries Service to enlist and train subsistence hunters to help gather data on stomach content, muscle mass, blubber and other measurements.

Additional biosampling at the Bering sponsored by the National Oceanic and Atmospheric Administration will help researchers refine coastal population estimates, a key factor in determining how many seals can be safely harvested by subsistence users and commercial fishing without having an adverse impact on the overall population of this important subsistence species.



\$cience brings research dollar\$ to Alaska

Ask any Alaskan what drives the state economy and resources like oil, timber, mining and fishing will likely complete the list. Few, if any, people would mention science. But scientific research is bringing a growing number of hidden dollars that ripple through the state, too.

The National Science Foundation has made a long-term commitment to funding research at the Bering in a number of projects. Researchers at the Bering Glacier workshop announced projects with 4-5 year timeframes and budgets exceeding \$5 million. Plans are under way for the multi-year St. Elias Erosion and Tectonic Project to bring a ship up to Alaska for an offshore seismic program in 2006 at a cost of more than \$1 million.

“Nowhere else in the state, outside the university system, is this type of money flowing,” says BLM biologist John Payne. He estimates that researchers are currently spending more than \$3.5 million annually on research around the glacier and the amount is increasing each year.

BLM alone spends about \$200,000 each summer on direct logistical support costs such as food and transportation. “The way it’s growing, in a few years we’re going to need (financial) help,” says Payne, but “in view of some of the huge grants people are securing, I think that help is now a distinct possibility.”

All the researchers funnel through Cordova coming and going, and, they spend additional money on overnight lodging, meals and bush flights to reach the field camp. They also come to Anchorage and Fairbanks to meet with other researchers at the universities, government agencies and consulting firms, spending more money on meals and lodging. Some will linger longer in Alaska for sightseeing and tourism. The camp also attracts various government officials from all levels who come for short visits.

Micro-meteorites help warn Alaskans

SCIENCE
— ON THE —
PUBLIC
LANDS

As Alaskans go to sleep tonight, some will dream of getting up in the morning and strapping on their skis to go skiing in the deep powder. Unfortunately for others, natural disasters like floods, earthquakes and fires haunt their sleep. Alaskans might have nightmares about the Good Friday earthquake of 1964, or the floods that ravaged Fairbanks just a few years later, or the recent wildfires that burned more than 6.7 million acres. The BLM plays an important role in preventing and tracking these natural disasters occurring throughout Alaska and Canada that can have such a great impact on people's lives.

Data collected from remote sites that are part of the Alaska Meteor Burst Communication System (AMBCS), are made available to federal and state agencies including the National Weather Service, the Army

Corp of Engineers, the U.S. Department of Agriculture's Natural Resource Conservation Service, and the Bureau of Land Management, as well as several Canadian agencies so they can all warn the public of any impending dangers or hazards.

BLM's system was installed in 1977 and many of the original parts will require replacement soon.

How it works

The AMBCS bounces radio signals off miniscule meteor trails in the Earth's upper atmosphere. The meteors are about the size of a grain of sand or a speck of dust, much smaller than Halley's Comet. As the Earth hurtles through space, it sweeps up billions of the particles in its path. As these micro-meteorites collide with the Earth's atmosphere, they leave behind a temporary wake of ionized particles.

These meteor trails actually

re-radiate radio frequency energy, or radio waves, effectively reflecting the signals back to Earth. The meteor trails used for communication vary in duration from a few milliseconds to several seconds. Meteor burst communication can be effective from 0 to more than 1,000 miles. (Ranges of less than 100 miles use another propagation mode known as "ground wave.")

The AMBCS uses this phenomenon to "talk" between its central facility at BLM's Campbell Tract in Anchorage, and remote data sites scattered across the state from Juneau to Nome to Atigun Pass. The method allows data communication statewide without a single repeater or satellite relay. Although the meteor burst phenomenon is not suitable for voice communication, its extremely short transmission time of less than 1/100th of a second is an excellent fit with remote, low power, data communication requirements.

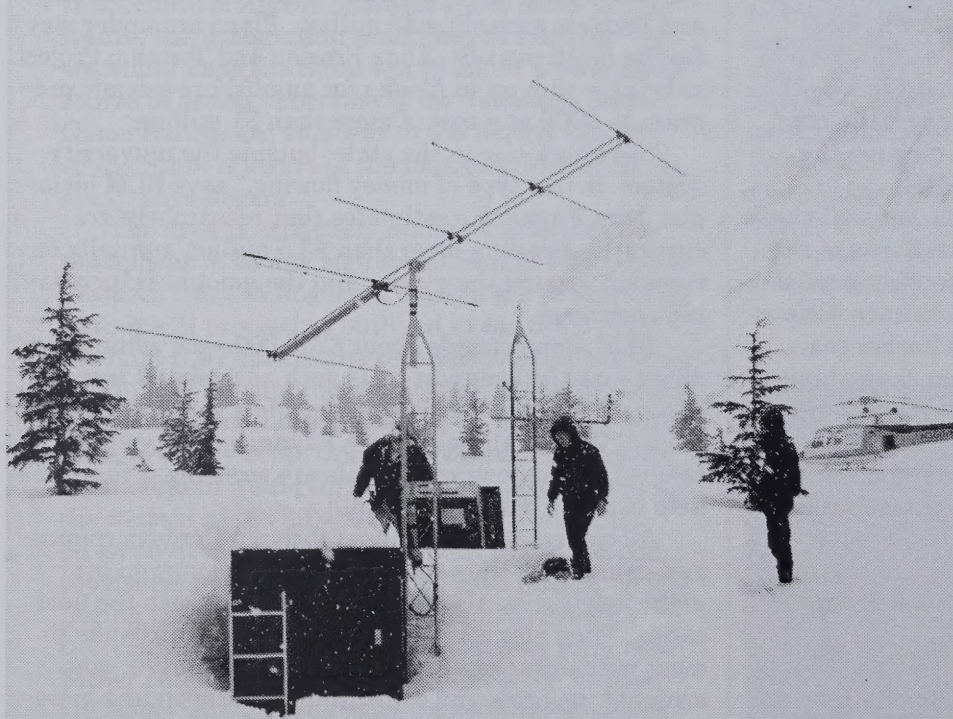
Meteor Burst vs. Satellites

Advantages to operating this system include easy installation, reliability and security. Many satellites are subject to interference from solar flares and other radio waves and must be taken off the air for maintenance. The meteor site will keep transmitting until the message gets through. Unlike a satellite, the meteor burst system cannot be jammed or damaged by terrorists. Also, satellite systems can charge up to \$6 per minute of airtime, while the meteor burst system has no transmission costs.

Most satellites orbit over the equator and therefore require an extremely low look angle from Alaska. This system won't work in our canyons, mountain passes and streams so agencies have to take measurements in these special locations to properly forecast floods, river levels, snow loading and avalanche danger. With the meteor burst system, this work is unnecessary.

—Steve Politsch

BLM-Alaska Communications Manager Steve Politsch, can be reached at (907)



Sensors that collect data are often located next to streams and in mountain pass snowfields. These remote sensors collect a wide range of data, including information about aeronautics and the environment. Check www.AMBCS.org for actual data reports.

Icy Roads Ahead



BLM scientists take close look at access to petroleum reserve

SCIENCE — ON THE — PUBLIC LANDS

The mere mention of “icy road conditions” or “black ice” quickly conjures up images of cars upside down in a ditch and people seriously hurt. But in the National Petroleum Reserve-Alaska, ice roads are a necessity, allowing industry to reach remote areas to explore for oil without building permanent gravel roads. March and April are key months as workers scramble to complete projects before the arctic spring shuts the exploration season down for the remainder of the year.

Fifty years ago, people moved heavy equipment around the arctic by just blading off the tundra and driving through the ditch. That led to huge problems with melting permafrost and erosion and the practice was discontinued by 1969. Subsequent attempts at building an access route more compatible with the soils involved flooding low areas with water and scraping and packing snow.

Today, substantial engineering has developed a more reliable technique. Construction crews use special low-tire-pressure vehicles known as Rolligons to pack down snow. Tire air pressure is controlled by the operator inside the cab and ranges from 2 to 25 psi depending on conditions and load. Then they chip ice off nearby lakes to fill in low areas and cover exposed slopes. Ice bridges allow stream crossings. Once a sufficient base has been prepared, crews pump water from local lakes

to finish building and then maintain the ice road and ice pad. The Rolligons then travel adjacent to the ice road and spray water on its surface to fill cracks and increase the ice thickness. At temperatures below zero degrees Fahrenheit, the water on the ice road freezes solid in about 15 minutes.

In each case, the ice road leads to a temporary ice pad. The typical ice pad site is approximately 500 x 500 feet and serves as the base for drilling operations. Ice pads house personnel in modular buildings that include offices, kitchen and bunk rooms. Vehicles, exploratory equipment and high powered generators are also stored on the ice pad. In the spring when the ice pad is still in place and after the equipment has

been removed, the top four inches of the pad are shaved off and filtered to ensure that no oil or debris were left to melt into the tundra.

This is the sixth winter since the BLM began its most recent round of leasing in 1999. To date, industry has drilled 18 exploratory wells from 17 ice pads in the petroleum reserve. Wells on the 18th and 19th ice pads will be completed at the Kokota prospect by this April. All this exploration is taking place west of the Kuparuk field where gravel roads end. The ephemeral ice roads make it all possible. If no oil is found, there will be little or no sign anyone was there.

—continued on page 8

Photos by
Scott Guyer



Upland tussock cottongrass. BLM research indicates that ice roads will retard flowering in the summer, but such vegetation will fully recover in time. More surprisingly, the temporary roads do not appear to have any effect on vegetation in wetlands.

Icy Roads Ahead

—continued from page 7

Are ice roads the “magic bullet” that solves a problem, or, are there hidden, adverse impacts to the seemingly too-good-to-be-true method billed as the way industry can coexist with the arctic environment?

BLM wants to know for a variety of reasons. “As of spring 2004, more than 195 miles of ice roads have been constructed in the reserve. This winter, industry projects building another 70 miles of ice roads and about 17 acres of ice pads,” says natural resource specialist Don Meares of BLM’s Northern Field Office.

“Cumulative impacts are always an issue when it comes to environmental assessments and environmental impact statements. We’ve got to watch things closely so we can accurately predict impacts when we analyze proposals for future exploration,” says biologist Dave Yokel, also in the Northern Field Office.

Yokel has been leading two studies to get some scientific data to accurately predict impacts and recovery times. One pilot study under way for three years is looking at the total vegetative cover on a location used for an ice road in 2001, another used in 2002, and at a place where the two roads overlapped.

The study is also measuring the thaw depth of the soil and the impact on tussocks. “We want to see if there is a difference between areas that are used once versus areas with multiple seasons of ice roads on the same spot,” says Yokel. If there are differences, “it will help BLM determine whether to keep adding impacts to one area or spread small impacts over a larger area,” he said.

Yokel is also trying to document the long-term effects of seismic trails. Seismic trails are not constructed like ice roads, but rather are paths that heavy equipment fol-

low in the winter to map geology by sending shock waves into the earth. Yokel and others return to selected locations every third summer to evaluate vegetation and document findings. He will visit specific sites for the third time this coming summer in a study that began in 1999.

Ice road research is not restricted to BLM. Other studies are under way sponsored by industry, University of Alaska-Fairbanks, and several other state and federal agencies. In 2003, BLM and the Alaska Department of Fish and Game cooperated in a study to determine the effects of seismic exploration on fish overwintering in lakes. Apparently seismic exploration using vibroseis equipment over lake ice has no adverse impact on the fish, nor does it cause displacement from preferred areas on more than a temporary basis.

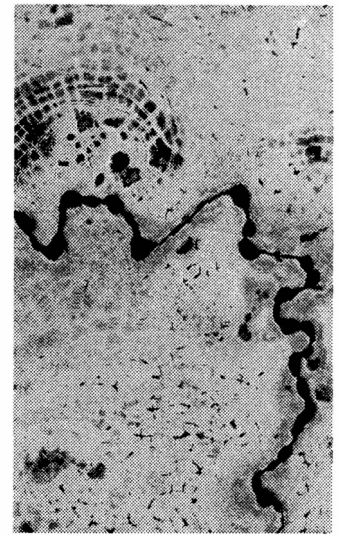
Although BLM hydrologist Richard Kemnitz isn’t doing any specific research, he keeps tabs on other’s studies as part of his surface protection responsibilities. Also, he is particularly interested in any side effects caused by the ice dams that are created where the roads cross major streams and rivers. The dams are intentionally breached at breakup to allow water to properly drain. “I try to spot problems developing before they become real problems,” says Kemnitz.

According to Northern Field Office Manager Bob Schneider, “While March and April bring the most visible aspects of oil and gas exploration, approving wintertime activities is really a year-round proposition. We do our major research in the summer. Industry selects their final travel routes and BLM issues permits in the fall. Beginning in November, we’ll start monitoring tundra conditions. Once the tundra is opened to vehicle travel, staff will monitor ice road construction and use throughout the winter and spring. In the summer, we complete



Dave Yokel

Research has helped develop several techniques to properly breach an ice road in the spring to minimize stream scouring from high water flows at peak runoff.



our final inspections and evaluations and the process begins again.”

Plants grow slowly in the challenging arctic environment. Therefore, it may take many years for any side effects of transporting heavy loads on ice roads to become known. BLM natural resource specialist Scott Guyer figured out a way to “go back in time” to get enough data to draw some conclusions now instead of later.

Guyer helped design a study that found a well-documented ice road built in 1978, the Kik-Inigok ice road. This 38-mile-long ice road was designed and built to allow the construction of a gravel airstrip for a well pad. The ice road was used heavily compared to the current traffic on contemporary roads in the petroleum reserve. You could hardly find a road with more impressive construction details. More than 88,000 yards of gravel were hauled during a madcap 38-day construction window. The estimated maximum daily load of gravel exceeded 140 round trips, with each dump truck and trailer load exceeding 65 metric tons. Replenishment and maintenance of the ice also required the daily transport about 1,800 metric tons of water along the ice road.

Guyer compared high altitude photos of the road taken in 1979 to

some taken in 2002. He also established some vegetative transects at selected points on the old road and then compared the data to another nearby ice road built and used one year earlier. From this, he was able to analyze impacts in a 24-year timeframe.

Analysis of the one-year-old ice road showed that there was short-term tundra damage to upland grasses, forbes and shrubs as evidenced by a reduction in plant size and in some cases a high percentage of die-back from freezing. However, there was a surprise. “At the same time, vegetation in wetland sites showed no impact from the accumulation of ice from road construction,” says Guyer. He concludes that since wetland vegetation naturally freezes under ice during winter, the “extra ice” added during road construction does not seem to affect the plants. He also found that the length of time the ice road is in place or the amount of weight hauled on the road had no additional impact to soils or vegetation.

Despite the adverse short-term impacts to upland vegetation, “We found that the Kik-Inigok ice road easily seen on the 1979 photo was imperceptible by 2002. We also checked on the ground and found no tundra damage where the ice road

(upper left) High altitude photo of Kik-Inigok road in 1979, one year after use.

(upper right) Same area photographed in 2002.

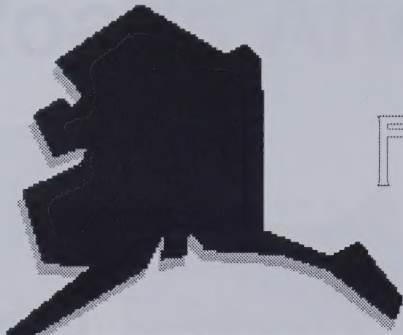
(center) Detailed photographs and measurements were taken on the ground along the former ice road.

was used. Tussocks had recovered and were all healthy, intact and displayed normal spacing and structure. Shrubs were vigorous and also recovered to normal levels,” says Guyer.

“The standard in the world is to build a gravel road in this type of environment. Ice is an alternative. It’s a wonderfully creative and natural medium to build things with. But like all things, it has its limitations,” says Meares.

More research needs to be done, but, so far, today’s ice roads seem to be the best hope to minimize the impacts of exploring at the outer edges of the North American frontier.





FRONTIER FLASHES

Late breaking news from around Alaska

Rocket Crashes in White Mountains

On March 6, a 70-foot solid fuel rocket carrying instruments to study the aurora borealis crashed in the White Mountains National Recreation Area north of Fairbanks. The crash occurred in a remote location and did not damage any property but it left debris and a crater about 100 feet square. The crash site was cleaned up by helicopter. BLM authorizes the Poker Flat Research Range to include the White Mountains in its flight operations path under special permit. More than 2,000 rockets have been launched from the facility since it opened in 1969.

Collin Cogley



Research instruments valued at more than \$1 million were quickly recovered from the crash site.

On February 28, **The Bay Resource Management Plan** generated more than 700 electronic comments in one day from individuals concerned about lands within the planning area that are currently closed to mineral entry. Under the Alaska National Interest Conservation Act, vast sections of lands in Alaska were withdrawn for classification and inventory in support of the land transfer program. The withdrawal of some of these lands may eventually be revoked which could ultimately open some lands to mineral entry and other public uses. The Anchorage Field Office will release a report summarizing the public comments received in late March. The final plan is scheduled for July 2007. Check www.anchorage.ak.blm.gov to keep apprised of the progress.

BLM plans stream restoration at Harrison Creek



BLM's Northern Field Office is developing an environmental assessment for a project designed to reclaim and restore approximately 2.3 miles of Harrison Creek near Central. Harrison Creek, a tributary draining into Birch Creek, a congressionally-designated Wild River, was extensively placer mined for gold from 1895 to the 1980s and are now abandoned mine lands. There are 12 active mining claims outside the project area. The project seeks to return several stretches to pre-mining condition, restore riparian habitat for fish and wildlife, and reduce the amount of suspended inorganic solids entering Birch Creek. The project is expected to begin in 2006 and will afford local residents an opportunity to bid on doing the reclamation work.

BLM's Glennallen Field Office signed a Memorandums of Understanding with **Chickaloon Village** and the **Native Village of Eyak** establishing government-to-government relations. The MOUs address opportunities to share cultural knowledge and communication practices for resource management purposes.

BLM's Anchorage Field Office continued government-to-government meetings with key Alaska Native constituents in southwest Alaska. Acting Anchorage Field Manager Gary Reimer and staff recently met with tribal officials from several villages in the **Bristol Bay Region** and the **Calista Region**. The meetings are related to The Bay Resource Management Plan, now being developed for 3.6 million acres of public land.

BLM met with village corporations in **Dillingham** March 17 to discuss the Alaska Land Transfer Acceleration Act (Public Law 108-452) and updated the Bristol Bay villages regarding the status of land conveyances in their area.

Frontier People

Ken Taylor (right), newly-appointed as the first executive director of the North Slope Science Initiative a multi-agency effort at the federal, state and borough level to integrate inventory, monitoring and research across the North Slope.



Teresa McPherson

Former BLM-Alaska State Director **Fran Cherry** retired with 40 years federal service effective February 28. He most recently served as the Deputy Director for BLM in Washington, the second highest position in the agency.

In Memoriam

John Santora, former head of the Joint Pipeline Office and former Deputy Director for Minerals Management for BLM-Alaska, passed away in August 2004.

Robert Jones, who retired from a lengthy career with both the Joint Pipeline Office and BLM-Alaska, passed away in Dec. 2004. Jones was most known for creating the Resource Apprenticeship Program for Students which opened paths to natural resource careers for rural Alaska students.



Teresa McPherson

(left) **Julia Dougan**, new BLM-Alaska associate state director, visited BLM's Campbell Tract with acting Anchorage Field Office Manager **Gary Reimer**. BLM played host to 79 dog teams and their mushers and handlers (above) at the conclusion of the ceremonial start in Anchorage. This was the third time officials had to end the ceremonial start in Anchorage due to poor snow conditions.

Sign up for a free subscription to BLM Alaska Frontiers... and other publications

Many exciting and interesting things are happening on your BLM-managed public lands in Alaska. Four times a year we report on what BLM is doing on your behalf. Find out by reading **BLM Alaska Frontiers**.

If you are not currently on our mailing list, just fill this page out and mail it in. Or if you are already receiving it, check your mailing label below to see if it is still current. The Post Office will only forward your mail for a short time after which these newsletters are returned to us as undeliverable.

You can also use this form to (a) cancel your free subscription to **BLM Alaska Frontiers** if you no longer find it useful, (b) suggest topics you would like to see articles on, or (c) subscribe to our other free publications.

Name: _____

Street/box: _____

City: _____

State/zip: _____

email: _____

Mail this entire page to the return address below or **fax** it to the editor at **(907) 271-5421**. Be sure your current mailing label is visible.

Suggestions welcome — enclose a brief note with your ideas for future stories in **BLM Alaska Frontiers**.

Add me to your list to receive these free publications:

___ **BLM Alaska Frontiers**
(information about the BLM-managed public lands in Alaska, published quarterly)

___ **Campbell Tract Leaf**
(information about projects or events affecting the Campbell Tract in Anchorage)

___ **Fireline**
(statewide wildfire information from the Alaska Fire Service, published twice a year)

Other information on:

- ___ The Bay Resource Management Plan
- ___ South National Petroleum Reserve plan
- ___ East Alaska Resource Management Plan
- ___ Kobuk-Seward Resource Management Plan
- ___ Ring of Fire Resource Management Plan

Other action requested:

- ___ update my address
- ___ please cancel my subscription to **BLM Alaska Frontiers**

Upcoming Events

Look for BLM's booths at the upcoming Great Alaska Sportsman Show in **Anchorage** April 7-10 and the **Fairbanks Outdoor Show** April 22-24. It's a great way to obtain maps and brochures as well as meet BLMers who can help you plan your summer vacation.

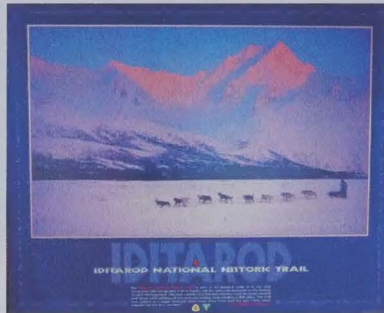
BLM-Alaska's Resource Advisory Council's next meeting is April 7 in **Glennallen**. The council will visit the Arctic Man winter sports rendezvous the following day.

BLM will conduct a public scoping meeting in Fairbanks for a plan to amend the current Resource Management Plan for the **White Mountains National Recreation Area**. The existing RMP was completed in 1986 and needs to address changes in off-highway vehicle use. Contact BLM public affairs specialist Doug Stockdale at (907) 474-2264 for specific date, time and location. Details may also appear on the BLM Northern Field Office's website aurora.ak.blm.gov.



Judy Patrick/ConocoPhillips

Secretary of the Interior Gale Norton (second left) visited the National Petroleum Reserve-Alaska in early March and met with Alaskans in Barrow to discuss BLM's recommendations for future leasing in the reserve. She also visited winter drilling operations and the Alpine production facility. Also pictured, (left to right) Special Assistant Cam Toohy, Sen. Lisa Murkowski and BLM State Director Henri Bisson.



BLM-Alaska released the third and final commemorative poster celebrating the 25th anniversary of the Iditarod National Historic Trail.

The Jeff Schultz photo features musher DeeDee Jonrowe in Rainy Pass. Copies were distributed during the ceremonial race start in Anchorage.

Additional copies are available while supplies last at BLM offices in Anchorage, Fairbanks and Glennallen.



Bureau of Land Management

Office of External Affairs
222 W. 7th Avenue #13
Anchorage, Alaska 99513

Official Business

BLM Alaska Frontiers

Managing editor:
Edward Bovy, (907) 271-3318

Contributing writers:
Danielle Allen
Marnie Graham
Craig McCaa
Teresa McPherson
Steve Politsch

Editorial:
Wendy Longtin

BLM-Alaska Frontiers is published quarterly in March, June, September and December.

Text and photos may be reproduced in whole or in part. Photos may be available on request for re-publication. Please credit BLM-Alaska.

BLM-AK-GI-94-005-1120-912

Read Frontiers
in full color at
www.ak.blm.gov

FIRST CLASS
POSTAGE AND FEES PAID
U.S. DEPARTMENT OF THE
INTERIOR
PERMIT NO. G-76

Inside. . .

Science on the public lands	
Salmon cam	2
Bering Glacier	3
Micro-meteors	6
Icy roads	7
Statewide news roundup	10