TECHNOLOGY FOR
Alaskan Transportation
DOT Statewide Research & Technology Transfer
Local Technical Assistance Program

"Improving Alaska's quality of transportation through technology application, training, and information exchange."

Spring 2008
Volume 33, Number 1

In this issue . . .

Soil Stabilization on Alaska's Remote North Slope

In many of Alaska's unstable soils, simply building a pad can present significant challenges. In remote locations of the North Slope, where adequate materials are nonexistent or cost-prohibitive to import, technology may prove a cost-effective solution for soil stabilization.

About 47 miles east of Barrow, the U.S.'s farthest north city, lies

(continued on page 2)

Scouting the Alcan Trail: Part Three

This is the third installment in a series of articles about mining student Ed Borders who, in the winter of 1941, travelled the proposed route of the Alaska Highway on foot. Along the 1,523 mile route, from Fairbanks to Hazelton, B.C., he collected data on climate and topography for the International Highway Commission, charged by President Roosevelt to determine the viability of such a massive construction project.

The previous articles have been based on the unfinished manuscript he left behind which, unfortunately, brings us along less than a third of his journey: just short of Burwash Landing. Because the route Borders followed did not end up being the route along which the highway would be built, his great expedition was forgotten by history. When I began researching Borders' story, I thought that the extent of Borders' legacy amounted to the manuscript and a few photographs stored in the Alaska Polar Regions archives at UAF.

As luck would have it, however, Judie Triplehorn at the Keith B. Mather Library (UAF Geophysical Institute) discovered the whereabouts of Borders' widow, Betty Jo Holland. I contacted Mrs. Holland and was delighted to discover that she still possessed a considerable

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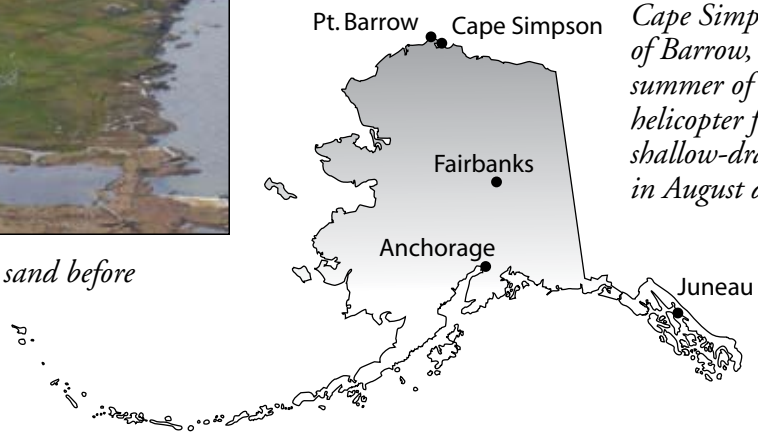
Geofibers *(continued from page 1)*

180,000-square-foot pad made of beach sand before treatment.

Cape Simpson—a former Defense Early Warning (DEW) site, is now a staging area for oil exploration. The industry was faced with a real challenge. They had to reinforce and stabilize 180,000 square feet of material—washed and well-rounded beach sand. Why use beach sand? There is no other material option, and hauling in material is not feasible with limited shallow barge access. The solution must support heavy equipment by having a California Bearing Ratio (CBR) value of 13 or more. The CBR is a penetration test for evaluation of mechanical strength of road subgrades. Also the solution must work in sub-zero temps, require a minimum of installation equipment, and meet environmental standards.



Cape Simpson is just east of Barrow, accessible the summer of 2006 only by helicopter from Barrow or by shallow-draft barge starting in August due to sea ice.

The 275 gallon plastic totes of synthetic binder and bags of geo fiber.

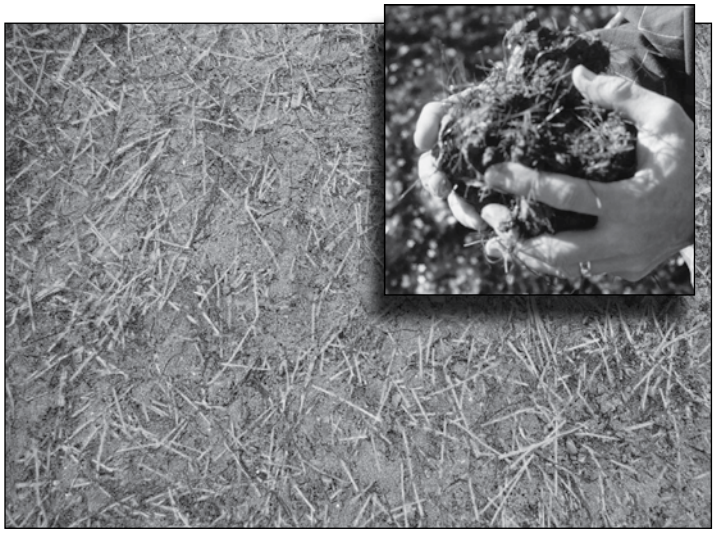
First synthetic fluid application. Tracked equipment was used for the application due to lack of surface bearing for conventional wheeled vehicles.

Yes, everybody helped! Fiber application by hand took approximately six hours.

Supervised soil and fiber blending process. The blending time was approximately three hours.

There was no single solution to stabilize the local material to necessary standards. But a combination of proven technologies from other applications was selected—geo fibers and synthetic binder. Geo fiber is a polypropylene fiber that when blended into soil offers reenforcement, often used for slope repair and slope construction. It is also used in the sports industry to reinforce grass football fields. Synthetic fluid is used in gravel roads due to its continuous compaction, grade-ability, easy application, and nontoxic nature.

The initial step was to apply the synthetic binder with a tracked vehicle. Lack of surface bearing made wheeled application out of the question. Step two consisted of geo fiber bags strategically placed on the pad and broad-cast by hand. Everyone got involved, even the camp



Close-up of blended geo fibers before final application of synthetic fluid and compaction.

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cook. A front-end loader with a tiller attachment blended the geofibers into the soil to complete the third step in the process. The fourth step was another application of the synthetic binder, followed by the fifth and final step, compaction with a conventional roller.

In situations where logistical challenges make traditional soil stabilization cost-prohibitive, geo fiber and synthetic fluids could become very viable options in the future. At Cape Simpson the pad was stabilized in three days for about $1.95 per square foot: many times cheaper and much faster than importing materials.

What are other applications for Alaska? The Alaska University Transportation Center and Alaska DOT Research Section are beginning research in this area. Findings will include suggested applications for this process. DOT & PF hopes this technology will become a cost-effective solution for building roads and airports in marginal soils in rural Alaska.

For more information on the Cape Simpson project or on potential applications, go to www. peakalaska.com or contact:

Dave Waldo - Alaska Research & T2
david.waldo@alaska.gov
Dave Brangan - Peak Civil Technologies
dbrangan@peakalaska.com
Kenan Hazirbaba - Alaska University Transportation Center
ffkh2@uaf.edu

Almost done!

Pad surface after final synthetic fluid application.

Leaving the pad ready for work. Synthetic fluid and geo fiber application took three days with a base crew of five people. Stabilization cost approximately $1.95 per square foot.

National Rural ITS Conference Sept. 3–5, 2008 Anchorage

Come join transportation professionals from around the U.S. and Canada at the National Rural Intelligent Transportation Systems (NRITS) Conference at the Hotel Captain Cook in Anchorage this coming fall! For over 10 years, NRITS has drawn national attention to rural intelligent transportation systems (ITS) applications and issues. ITS refers to rapidly emerging technologies applied to the transportation network to improve the safety and efficiency of travel. Alaska's ITS program is called Iways (http://iways.alaska.gov). We are proud to host this national conference and hope to raise awareness on the benefits of ITS for rural Alaska.

NRITS draws about 300 participants from over 25 states and provides a dynamic forum for participants to connect and share information on technology solutions for small urban, rural, and remote communities. Participants include multimodal transportation specialists from federal, state, and local government agencies and the private sector; national and international research scientists and engineers; and those affiliated with nonprofit organizations and political affairs.

NRITS 2008 is sponsored by ADOT&PF, the Federal Highway Administration, ITS America, Western Transportation Institute, Alaska University Transportation Center, and the newly established ITS Alaska State Chapter. NRITS 2008 will include the following topics related to rural ITS:

- Native American issues
- Climate change impacts
- Commercial vehicle and freight mobility
- Emergency medical services
- ITS planning, deployment and sustainability
- Traveler information, e.g., 511
- Road weather information systems
- Transit and paratransit
- Vehicle infrastructure integration (VII)
- Wildlife-vehicle collision and solutions

TRAINING! "Mini" training sessions are the highlight at this event. These two-hour crash courses offer quick tips and overviews in a wide variety of topics: systems engineering, Clarus (road weather data) project, FHWA rules and policies, nonintrusive traffic counts for rural areas, crash data integration, and wildlife collision mitigation.

TOURS! Several tours allow for a more hands-on training experience. The mega-tour will offer a half-day excursion to the Anton Anderson Memorial Whittier Access Tunnel to see the sophisticated tunnel control system, and, then to Turnagain Pass to get a tour of the unique power and communication at the department's road weather information system. Also enjoy a side trip to the Portage Glacier Visitor's Center. Another major tour includes a full-day train ride to Talkeetna Lodge. Along the way an ARRC IT manager will present and point out the railroads technology. Another tour gives you a two-hour excursion of the new Glenn Highway weigh-in-motion system tour brought to you by our Measurement Standards and Commercial Vehicle Enforcement team.

GET INVOLVED! There are many ways you can be involved: attend the conference, submit an abstract and present, host a booth, moderate a session, help the planning committee, volunteer during the conference ,and more.

Come join us!

For information: http://www.nritsconference.org

Jill Sullivan, phone: 907-465-8592, e-mail: jill.sullivan@alaska.gov

Call for Abstract Now!

The 2008 National Rural ITS Conference program committee invites you to submit an abstract for presentation at the upcoming conference. All abstracts must be received by Friday, February 1, 2008. Ensure that abstracts follow the guidelines.
See: http://www.nritsconference.org/

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Interactive Access to State of Alaska Land Records

Now you can query, research, and verify state land ownership and land use using the Alaska Mapper service from the Department of Natural Resourses.

The information displayed on this web site is for graphic illustration only, and the source documents remain the official record.

Just follow the easy instructions starting at http://mapper.landrecords.info/ and choose the interactive map that best fits your needs. To guide you on how to build your own custom map, complete instructions and overview are provided. Once you have selected a map, you can explore and print information by using the navigation menu on the web page.

Here is a list of the maps available:

Ownership Map

Displays current state land ownership and the availability of those lands for use under specific rules and regulations of the State of Alaska.

Surface Classification Map

Displays how state land may be used as a result of an area plan or site specific classification.

Land Estate Map

Displays DNR authorizations or disposal of state uplands and tidelands to third-party interests, such as individuals, businesses, municipalities, boroughs, or other state agencies.

Mineral Estate Map

Displays current oil and gas, mining, and other subsurface resource uses on state uplands and tidelands. This map describes state lands as open or closed to mineral entry.

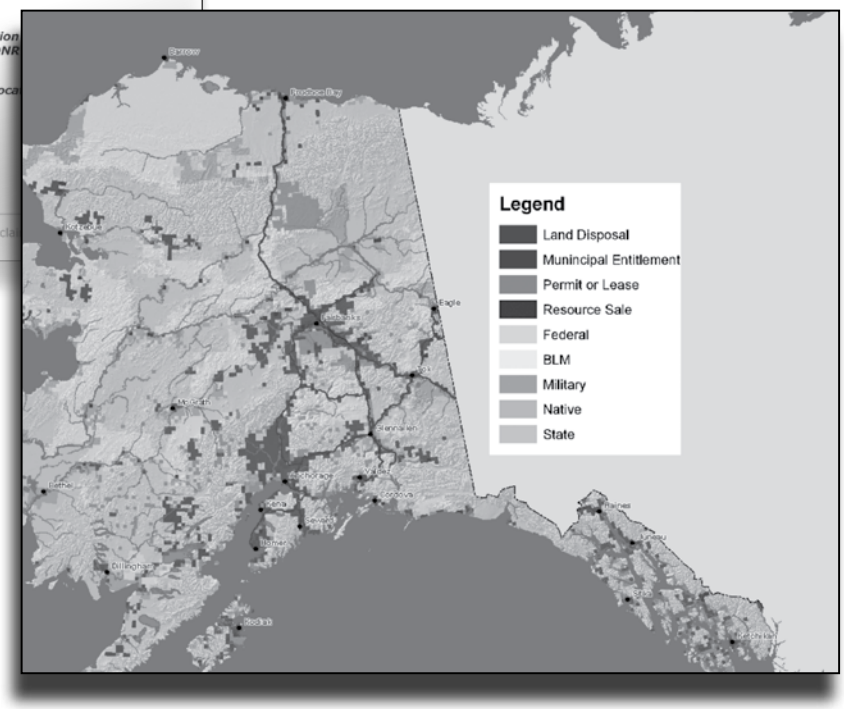
Water Estate Map

Displays the statewide location of water rights, water authorizations, reservations, and water management areas for surface and subsurface water sources.

Base Map

Displays the basic layers that are common to the above maps. Common layers include hydrography, township and section grids, state outlines, roads, pipelines, etc. This is a good map to start with when designing your own custom map.

Additional help may be obtained from the DNR Public Information Centers located in Anchorage, Fairbanks, and Juneau.



TRB Safety Training Resource Database

The Safety Training Resource Database is available at http://rspcb.safety.fhwa.dot.gov/

Use the Safety Training Resource Database to search for safety and work zone professional development resources, both those that are currently offered and those that have been offered in the past. The database is a project of the Federal Highway Administration Office of Safety and an important tool offered by the Roadway Safety Professional Capacity Building Program. The new National Transportation Training Resources (NTTR) database will include the Safety Training Resource Database, as well as coordinate with the new LTAP clearinghouse training database. You can search the database using these criteria:

Topic,
Resource Type,
Audience,
Performing Organization Type,
and
Key Word Search.

NHI Pavement Preservation Available On-line at No Cost!

Federal Highway Administration's National Highway Institute (NHI) is now offering a free web-based training course on pavement preservation designed for state and local highway agency personnel and contractors.

The 6.5-hour course, Pavement Preservation Treatment Construction (Course No. FHWA-NHI-131110), introduces pavement preservation concepts and techniques and provides a solid foundation of knowledge on preservation practices.

The course covers project and treatment selection, including design and construction of the following treatments:

- crack filling and sealing,
- joint sealing,
- patching and edge repairs,
- chip seals,
- fog seals,
- slurry seals,
- microsurfacing, and
- thin and ultra-thin overlays.

To take the training course, visit the NHI web site at www.nhi.fhwa.dot.gov. The course is listed in the NHI course catalog as FHWA-NHI-131110: Pavement Preservation Treatment Construction—WBT.

Participants must log in and register but will not be charged for the training. The Pavement Preservation Treatment Construction Guide is available online at http://fhwapap34.fhwa.dot.gov/NHI-PPTCG/index.htm.

Scouting the Alaska Highway*(continued from page 1)*

collection of Borders' things. When she expressed a desire to donate a portion of her collection to the UAF archives, DOT&PF arranged to fly me down to Malad City, Idaho, to interview her and safely transport those items to the archives. That trip will be recounted in the fourth and final article, which will appear in the Summer 2008 issue of *Technology for Alaskan Transportation*. For now, I will reconstruct the remainder of Borders' narrative from what remains of the manuscript, newspaper articles, and the Betty Jo Holland's account.

We left Borders huddled between an embankment and a sputtering campfire, clutching his .22 revolver while the howls of nearby wolves echoed through the canyon below him. The day before, he had finally come across the massive continental trough through which the highway was to be built and knew he was on the right path. The last many days had been difficult, his pack catching on the dense underbrush, his snowshoes stumbling beneath its weight. He was no longer making good time—and the country was becoming colder and less hospitable every day.

When he awoke the next morning from an uneasy sleep, the snow around his camp was pockmarked with wolf tracks. He determined to cover as much ground as possible so as not to spend another night in the pack's territory. All day he struggled through the undulating landscape and thick brush until he came over a ridge and saw Tetlin Lake below him. He happily changed into his skis and glided out over the smooth, crusty surface.

Not far from shore, Borders became lost in the glaring white. "Snow everywhere," he writes, "and not a sound, nor a sign of life, except for an occasional wolf track from the night before. My eyes kept watching for something, for anything that would let me forget the solitude of white. Suddenly, far ahead, near the left-hand end of the eastern shore, I picked up a black dot moving in a northerly direction along the snow. I squinted my eyes, trying to make out what it was. I could not see its legs move. I made for it as fast as I could […] just to satisfy my curiosity. A black, misty streak developed just behind the moving dot. Odd—very odd—I thought. Then the black dot arose to a slender height and flapped a pair of wings. Just a common mallard duck had been swimming along … Open water! I swung sharply to the right… [but] my ski heels lowered." Borders moved quickly to avoid slipping into the widening hole behind him. The weight of his stocky frame and heavy pack had nearly sunk him through the thin ice. When he reached the far shore, he made a quick camp and a fire to dry his damp boots and socks. That night he devised a plan for a new mode of travel that might not place him in such danger in his future ice crossings.

He reached Tetlin the next afternoon and began immediately to construct a toboggan on which he could pull his heavy gear, making for much easier travel. Villagers laughed to see the stocky white man hauling a sled like a dog. Borders just smiled and waved. The next many days of travel were much easier, and he soon found himself just outside of Burwash Landing.

In Burwash Landing, Borders met a young trapper named Babe Dickson. Among her huskies was a giant, 125-pound Mackenzie River husky she called Windy. Not nearly as efficient to feed as the smaller dogs on her team, Windy was an awkward addition to the pack despite his great strength. Borders liked the big dog immediately, with his permanently lowered ears, angled eyebrows, and tendency to growl whenever Borders approached. He imagined traveling the hundreds of miles ahead of him with a partner to share the load and the loneliness. He offered Dickson what money he had, but she refused. She looked Borders over, sizing him up, and told him there wasn't enough money to buy her giant husky. Then she untied Windy's tether and handed it to him.

Borders renamed him Butch and, although it took many days for the dog to accept his new situation, they soon became a working team. Butch warned Borders of wolves and thin ice, guarded the camp at night, and pulled the heavy toboggan. Borders shared food and

Butch, a 125-pound Mackenzie River husky from Burwash Landing, starts a new adventure with a new owner and a new name.

shelter with his irritable companion and was grateful each day for the company.

They traveled onward to Whitehorse and Atlin, turning south at the point where Route A and the existing Alcan diverge, and arrived in Telegraph Creek, B.C., on the first of April, nearly two and half months after Borders set out from Fairbanks. They followed the Klondike trail south, mushing across the Ground Hog coal fields. After crossing the Bubiche Mountains and falling in along the Skeena River, Butch and Borders met the oncoming spring and were forced to abandon the toboggan and skis, splitting the remaining load between them. Borders devised a pack for Butch that enabled the powerful dog to handle a great deal of gear.

As they moved south into warming weather, so did news of their success. Newspapers in Seattle, Portland, and Helena ran stories about the intrepid adventurer, the first on record to make such a journey. A few days before they reached Hazelton, after 91 days of travel, a welcoming party set out from the Anderson Buick Company in Seattle in two black 1941 Fireball Buicks. They crossed the border into B.C. where they contacted the provincial government to arrange a police escort to Hazelton. The flashing convoy arrived in the quiet town, sirens blaring, and met the two dusty travelers only an hour after they walked out the woods. Photos of the celebration and parade that followed show Borders, worn and tattered but grinning, leaning back on the hood of a gleaming Buick while Butch sits at his feet with a pack and snowshoes still tied to his harness.

The Buicks carried them back to Seattle, where Borders was reunited with Donald MacDonald, the highway engineer who had first enlisted him to make the journey. He handed back the map, now filled with notes and new details all along the dotted line. The next many days were filled with interviews and

Ed Borders is on skis, and Butch the husky is hitched up to Ed's homemade toboggan.

exploding flash bulbs. *People and Places Magazine* ran a five-page article on the trip and included photos of Babe Dickson and the Tanana cable car, as well as posed photographs of a well-groomed Borders in full gear with a laden Butch scowling at his side.

Borders and Butch began a lecture tour, showing slides and the 45-minute film he made of the trip, campaigning for support of the International Highway project. They appeared in Denver, Chicago, and other major cities, spending nearly a year on the road, speaking to as many people as possible. He helped compile the full report that was sent by the International Highway Commission to Secretary of State Cordell Hull in Washington, D.C.

The next year would bring many changes, both at home and abroad, and Borders and Butch would face new challenges. But their months in the wilderness had more than prepared them to rise to the occasion.

Quotes are taken from the unpublished manuscript "Traveling the International Highway" by Ed Borders. You can read earlier articles in this series in the summer and fall 2007 issues of *Technology for Alaskan Transportation*, available online at the DOT&PF library website at http://www.dot.state.ak.us/stwddes/research/search_lib.shtml. Ed Borders' story is currently being researched for a book. If you have any information about his story, please contact Bryr Ludington at fsbbl2@uaf.edu or Dave Waldo at dave.waldo@alaska.gov.

ED. BORDERS, FRONTIERSMAN

Here is the young man who startles the world by leaving Alaska in dead winter on skiis in company with his Husky dog and treks 1600 miles in 91 days to the United States.

★

50-degrees below zero, wolves and grizzly bears no hindrance to breaking trail over proposed Alaskan International Highway.

★

Lecture includes 1600 feet of beautiful color motion pictures of his trek. Meet "Butch" king among Huskies of the Far North. Hear and see ED. BORDERS!

Dramatic - Educational

For Dates Call B. 5624 or L. 5185

APPEARANCES

Time _____

Place _____

Alaska Maintenance Scanning Tour: Showcasing Innovation

Alaska's unique terrain provided a valuable learning experience for participants in an August 2007 maintenance technology scanning tour organized by the Western Maintenance Partnership pooled fund program. Sponsored by the Utah Department of Transportation, the three-year pooled fund is designed to promote effective maintenance strategies and to share experiences, innovations, expertise, and solutions in managing highways. Pooled fund participants include Alaska, Arizona, California, Colorado, Idaho, Montana, Nevada, Oklahoma, Texas, Utah, Washington State, and Wyoming, as well as the Federal Highway Administration.

Hosted by the Alaska Department of Transportation and Public Facilities, the tour featured stops along the Glenn Highway, the Trans-Alaska pipeline, and Prince William Sound. Topics of discussion included the DOT&PF's maintenance management system and pavement management system, winter maintenance activities, and avalanche control work.

"It was particularly helpful to be able to talk one-on-one in small groups and learn from what Alaska is doing," says tour participant Ken Shultz, state maintenance engineer for the Wyoming Department of Transportation. "The maintenance challenges that we face out West, including high winds and mountainous terrain, are very different from those in urban areas."

The DOT&PF manages 9,012 centerline kilometers (5,600 mi.) of highway, 258 airports, marine highways, a state equipment fleet, and public facilities that include 643 buildings and 29 ports and harbors. The department frequently faces severe weather-related challenges, including landslides, flooding, avalanches, and tsunamis.

To effectively manage these responsibilities, the DOT&PF uses an automated maintenance management system to track assets such as roads, bridges, airports, and water ports. The system reports the condition rating of an asset by latitude and longitude and allows the sharing of geographic information system (GIS) mapping of an asset with the public via the internet. Now in use at all state maintenance stations, the maintenance management system accurately tracks levels of services, including materials used, personnel hours, and equipment costs. "The system has been helpful statewide," says Jack Fullerton, chief of maintenance and operations for the DOT&PF's Central Region. "We are in our second year of using it and we are starting to see the benefits, including assistance in better tracking costs and budget planning."

The department's innovative maintenance management system, meanwhile, displays road pavement conditions using the Google Earth program. Before 2005, data was displayed on maps in a PDF format created with GIS. These maps were accessible on the web, but

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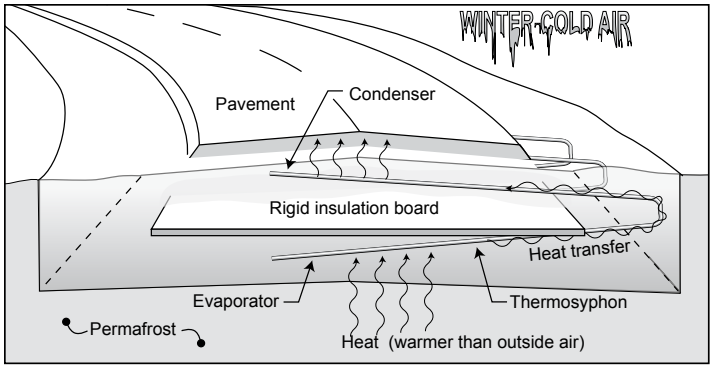
they were not interactive. Since 2005, map layers have been created for use in Google Earth that allow the user to more readily display and analyze pavement conditions relative to other reference data, including pavement photos that are taken every 15 m (50 ft.). The maps also have a zoom/pan feature and easy-to-use interface and can easily be converted from GIS.

With visits to the Nelchina and Tazlina district offices, the scanning group was introduced to the challenges that permafrost presents to the construction and maintenance of highways in the state's Northern Region. Permafrost underlies approximately 85 percent of the Alaska landscape and can vary from a couple of inches to several thousand feet in depth. Approximately $10 million is spent annually in the Northern Region to address the effects of thawing permafrost, which often results in uneven settlement and pavement cracking and rutting. The DOT&PF normally constructs roadways on a 1.2-m (4 ft.) subbase. This subbase serves as an insulation layer that protects the underlying permafrost and minimizes the build-up of reoccurring frost. In some locations where changes in the permafrost are particularly active, the DOT&PF may have to add several additional feet to the subbase.

Hairpin thermosyphons and air convection embankment (ACE) are two passive cooling systems used to minimize permafrost thawing. Thermosyphons work by moving heat from the permafrost layer to the air using compounds, such as freon or carbon dioxide, that change from liquid to gas and back at the proper temperature. ACE, meanwhile, uses the cooling characteristics of a clean, coarse rock layer to prevent an embankment from thawing. The use of large rock allows air to circulate through the embankment more vigorously during the winter when air temperatures are lower. The net effect is cooling of the embankment and the permafrost layer below. If we supply enhanced cooling during the winter months, the permafrost is able to survive the warmer summer season.



Hairpin thermosyphons

Valdez Harbor—another Alaska DOT & PF managed facility visited on the scanning tour.

Another challenge the department faces is keeping Alaska bridges free of ice. To combat this continual problem on the 457-m long (1,500-ft.) Knik River bridge, the DOT&PF installed an automated anti-icing system. The system relies on electronic sensors embedded in the roadway to record temperature and humidity conditions and assess whether the pavement is wet or dry. The system can then determine when ice will begin to form and spray anti-icing chemicals accordingly. One sensor performs its own quality control check by constantly heating up and cooling down to track the temperature at which ice will begin to form. "The system is working very well," says Fullerton. "This was a high-accident area before we installed the system, but last year no accidents were reported."

The DOT&PF's avalanche control program relies on the experience and knowledge of its team members. Hundreds of avalanches occur each winter on paths that threaten Alaska's highways, with about two dozen avalanches blocking roads annually. Department staff use a 105-mm Howitzer field gun at established shooting platforms along the roadways to neutralize a potential avalanche.

The tour concluded with a visit to the 4-km (2.5-mi.) Anton Anderson Memorial Tunnel in Whittier, which is the longest highway tunnel in North America. It was also the first U.S. tunnel with jet turbine and portal fan ventilation, the first to use computerized regulation of both rail and highway traffic, and the first tunnel designed to withstand temperatures below 4.4 °C (40 °F) and 241 km/h (150 mi/h) winds. Cars and trucks approaching the tunnel are separated from buses, and vehicles are queued in a staging area. Cars and trucks

(continued on back page)

Sign Retroreflectivity Requirements Have Been Added to the MUTCD

Safe Roads For a Safer Future
investment in roadway safety saves lives

One of the Federal Highway Administration's primary missions is to improve safety on the nation's roadways. More than 42,000 people have been killed on American roads during each of the past eight years. While only one-quarter of all travel occurs at night, about half of the traffic fatalities occur during nighttime hours. To address this disparity, the FHWA has adopted new traffic sign retroreflectivity requirements that are included as revision 2 of the 2003 Manual on Uniform Traffic Control Devices (MUTCD).

To comply with the new requirements, public agencies will have until January 2012 to implement and then continue to use an assessment or management method that is designed to maintain traffic sign retroreflectivity at or above the minimum levels specified. Public agencies will have until January 2015 to replace any regulatory, warning, or post-mounted guide (except street name) signs and until January 2018 to replace any street name signs and overhead guide signs that are identified by the assessment or management method as failing to meet the minimum retroreflectivity levels.

If an assessment or management method is being used, an agency would be in compliance with the requirements of the new provisions even if there are some individual signs that do not meet the minimum retroreflectivity levels at a particular point in time. Instead of using one or more of the five assessment or management methods described above, agencies are also permitted to develop and use other methods based on engineering studies.

Because of the seven to ten-year compliance period that has been adopted for replacing signs, highway departments will be able to improve sign inspection and management and replace the signs in a time frame that is consistent with the typical sign replacement cycle. Cost increases from upgrading materials and/or processes might be offset by the long-term savings that result from the longer life of the higher performance products.

For additional information on this rulemaking and sign retroreflectivity, please visit the FHWA retroreflectivity web site www.fhwa.dot.gov/retro.

Training and Meeting Calendar 2008

March

Construction Management Series: Managing Risk
Six two-hour afternoon sessions beginning March 18 in Fairbanks

Construction Cost Engineering for Transportation Projects
March 18–19 in Juneau

NHI 134055: Construction Inspection, Workmanship, and Quality
March 20–21 in Anchorage

April

Certified Erosion Control Lead
April 16–17 in Anchorage; April 28–29 in Juneau

NHI 134055: Construction Inspection, Workmanship, and Quality
April 15–16 in Fairbanks

NHI 380032: AASHTO Roadside Design Guide
April 15–17 in Anchorage

Risk Communication Seminar
April 18 in Fairbanks

NHI 130088: Bridge Construction Inspection
April 14–18 in Juneau, April 28 to May 2 in Fairbanks

May

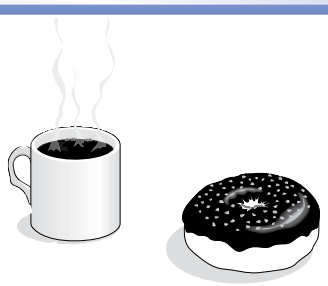
Certified Erosion Control Lead
May 12–13 in Faribanks

NHI 142051: Highway Traffic Noise
May 13–15 in Anchorage

For information about T2-sponsored training, contact:

Dave Waldo at 907-451-5323,
david.waldo@alaska.gov
or
Simon Howell at 907-451-5482,
simon.howell@alaska.gov
or go to:
www.dot.state.ak.us

Meetings Around Alaska



Society	Chapter	Meeting Days	Location & Contact	
ASCE	Anchorage	Monthly, 3rd Tues., noon	Moose Lodge	
	Fairbanks	Monthly, 3rd Wed., noon*	Westmark Hotel	* except Sept. and Feb.
	Juneau	Monthly, 2nd Wed., noon*	Breakwater Resturant	* except June–Aug.
ASPE	Anchorage	Monthly, 2nd Thurs., noon*	Coast International Inn	Jennifer Gibson, 343-8130
	Fairbanks	Monthly, 1st Mon., noon	Regency Hotel	* except summer
	Juneau	Monthly, 2nd Wed., noon**	Westmark Hotel	** except June–Aug.
ASPLS	Anchorage	Monthly, 3rd Tues., noon	Sourdough Mining Co. 5200 Juneau st.	
	Fairbanks	Monthly, 4th Tues., noon	Westmark Hotel	
	Mat-Su Valley	Monthly, last Wed., noon	Windbreak Cafe	George Strother, 745-9810
AWRA	Northern Region	Monthly, 3rd Wed., noon	Rm 531 Duckering Bldg., University of Alaska Fairbanks	Larry Hinzman, 474-7331
ICBO	Northern Chapter	Monthly, 1st Wed., noon except July and August	Zach's Sophie Station	Tom Marsh, 451-9353
ITE	Anchorage	Monthly, 4th Tues., noon**	Golden Lion Hotel	Anne Brooks, 272-1877 ** except July, Nov., & Dec.
IRWA	Sourdough Ch. 49	Monthly, 3rd Thurs., noon**	West Coast International Inn	
	Arctic Trails Ch. 71	Monthly, 2nd Thurs., noon**	Zach's Sophie Station	** except July & Dec.
Asphalt Pavement Alliance	Alaska	3rd Wednesday of every other month	varies	John Lambert 267-5294
PE in Government	Anchorage	Monthly, last Fri., 7 a.m.	Elmer's Restaurant	
Society of Women Engineers	Anchorage	Monthly, 1st Wed. 5:30 p.m. except July and August	DOWL Engineers	Julie Gaken, 269-0634

Scanning Tour *(continued from page 11)*

are metered into the tunnel at 15-second intervals, while buses are metered in at 45-second intervals. At the speed limit of 40 km/h (25 mi/h), it takes approximately seven minutes to drive through the tunnel from one end to the other.

For more information about the 2007 Western Maintenance Partnership scan tour, contact Christopher Schneider at FHWA's Office of Asset Management, 202-493-0551 (e-mail christopher.schneider@fhwa.dot.gov). To learn more about the Western Maintenance Partnership, contact Richard Clarke at the Utah Department of Transportation, 801-965-4120 (e-mail richardclarke@utah.gov). The partnership will hold its next scan tour in September 2008 in Wyoming.

The tour concluded with a visit to the 4-km (2.5-mi.) Anton Anderson Memorial Tunnel in Whittier, which is the longest highway tunnel in North America.

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