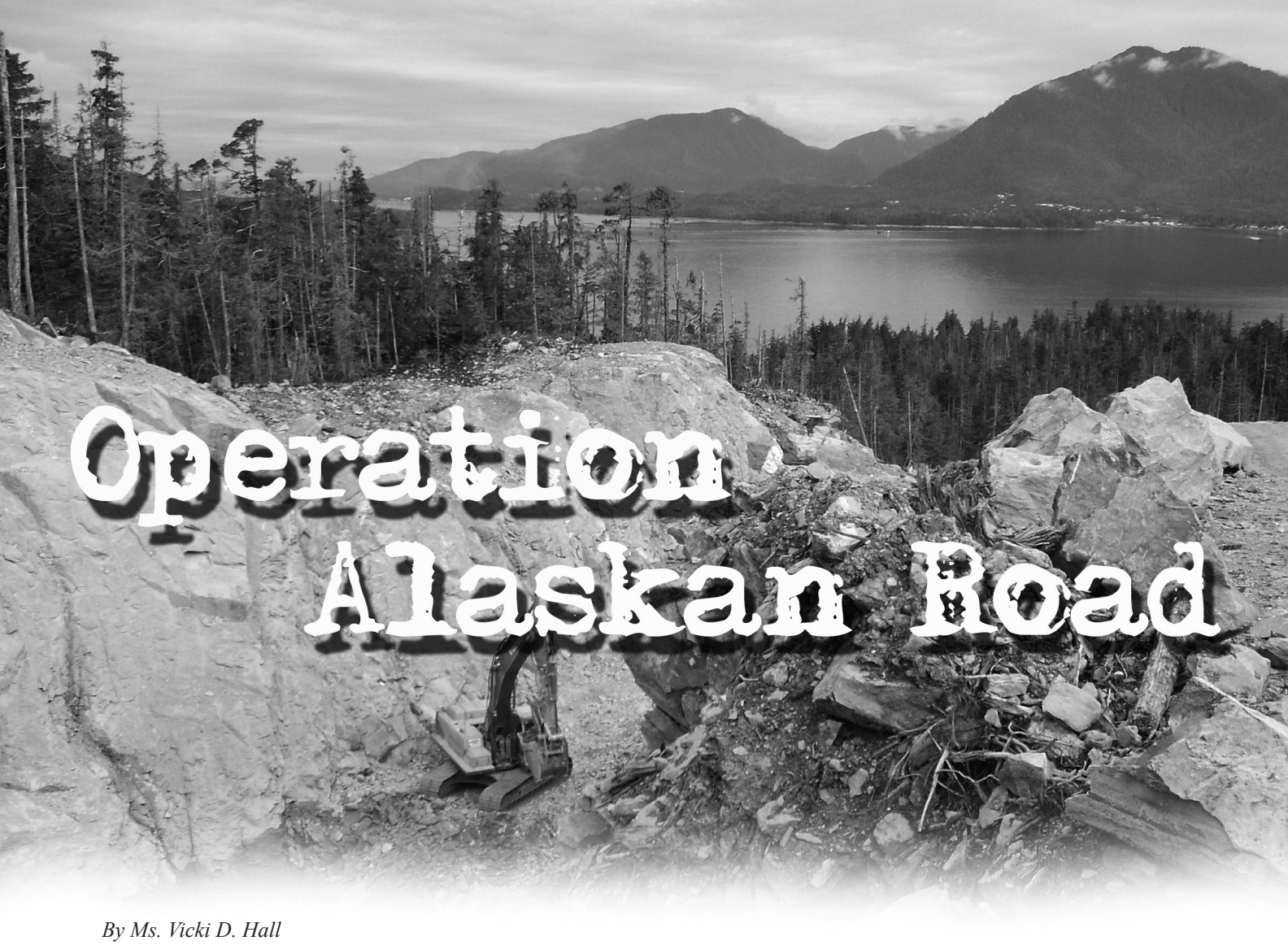


Operation Alaskan Road

By Ms. Vicki D. Hall

Just 15 miles south of Ketchikan, Alaska, in a remote region of the Inside Passage, lies a pristine island rain forest known as Annette Island. It was founded by Anglican missionary William Duncan and 800 Tsimshian Indians in 1887, and in 1891, by Congressional Act, it became the Annette Island Reservation. In 1916, all waters and inlets within 3,000 feet of the island's shoreline were included. Today, Annette Island and its surrounding islands comprise the only Indian reservation in Alaska. Metlakatla, with 1,800 residents, is the only inhabited village on the 136-square-mile island.

During World War II, a large airfield was built on the island as part of a defense network for the Canadian and American forces. After the war, the airfield became a United States Coast Guard search-and-rescue base, as well as a weather station for the United States Weather Bureau. For a brief period, the Federal Aviation Administration based personnel on-site. Until recently, it was the largest airfield in Alaska and continued to serve the area commercially until the 1970s. With the completion of the new Ketchikan Airport on Gravina Island, and the transfer of the Coast Guard Station to Sitka in 1977, Annette Field officially closed.

The Project

Operation Alaskan Road is the fulfillment of a 50-year-old promise made to the Metlakatla Indian Community after World War II—by the Alaska Road Commission and the United States Army Corps of Engineers—to build a road connecting their ocean side city to Alaska's Inside Passage. This would allow year-round ferry service to Ketchikan, Alaska's fourth largest city. The economy of Metlakatla is poor because of limited mobility to jobs and trade centers in Ketchikan, and the unemployment rate hovers near 80 percent.

Designated as an Innovative Readiness Training Program, Operation Alaskan Road was under the overall responsibility of the Alaskan Command, with the Missouri Army National Guard filling key leadership positions and providing engineering expertise. The road—14.3 miles of paved two-lane road with no more than a 7-degree grade in the roadbed—was a challenge seldom seen by military engineers. Clearing the dense vegetation (*muskeg*, which was sometimes 25 feet deep),[1] blasting and moving 1.5 million cubic yards of rock, and an average annual rainfall of 13 feet challenged the military engineers' expertise. Because of the

inclement weather, work on the project was limited to spring through late summer, so the project took 10 years to complete—from 1998 to 2007.

In preparation for the 1998 arrival of construction forces, Navy Seabees constructed Base Camp Wy Wuh in 1997. The joint task force consisted of Army National Guard, Navy Reserve, United States Marine Corps, and United States Air Force units—mostly on rotational 2-week training cycles. In all, approximately 12,000 personnel, from all branches of the military Services and civilian agencies, contributed their expertise and labor to make the dream become reality.

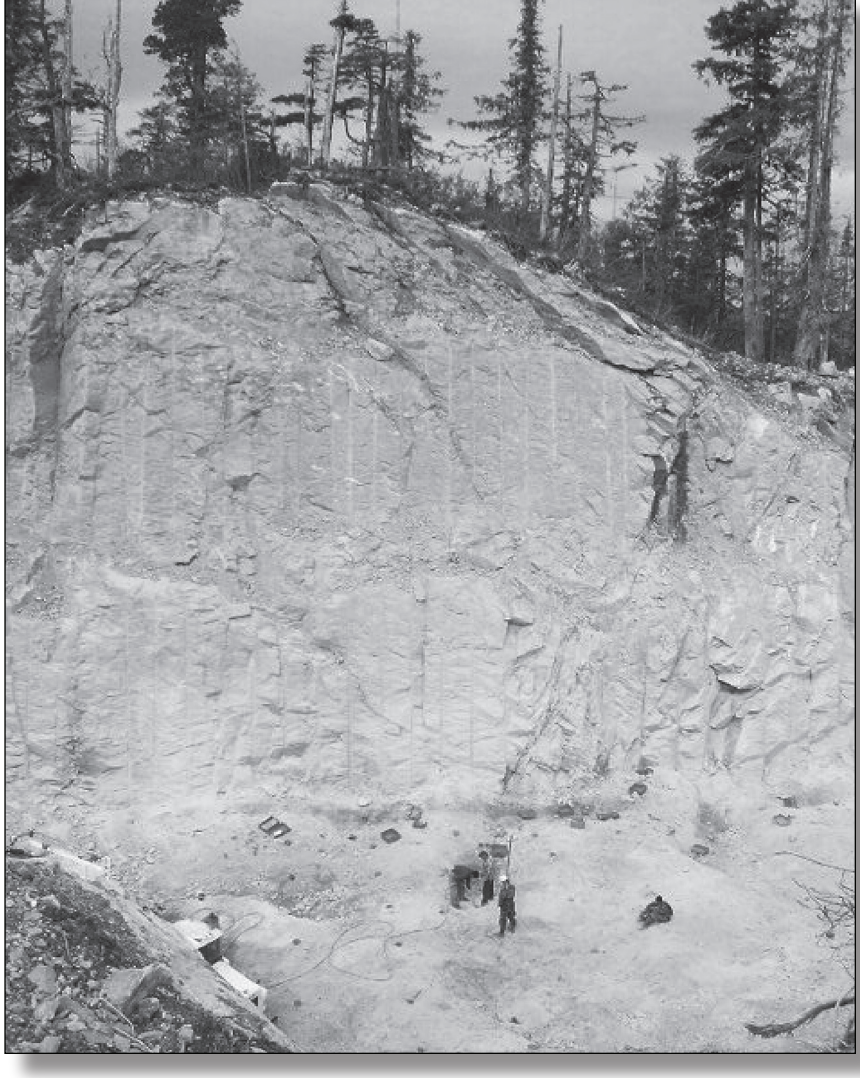
The Metlakatla Indian community celebrates completion of the road.

Safety

While building the road was an extraordinary humanitarian mission, an equally impressive achievement is the safety record—*not one case of a lost limb or loss of life during the 10-year project*. An initial accident probability analysis performed by the United States Army Maneuver Support Center (MANSCEN) Safety Office, Fort Leonard Wood, Missouri, in 1999 identified that statistically, 17 fatalities could be expected over the programmed 10-year project. Commanders developed an aggressive risk analysis of the hazards, which included personnel inexperience, adverse weather conditions, water operations, blasting and quarrying, heavy equipment operation in mountainous terrain, clearing of vegetation, quantity and condition of equipment, and supplies.

Change became the norm: weather conditions changed by the hour, personnel availability fluctuated from day to day, and there were equipment shortages and a lack of supplies,

This bridge was constructed to accommodate a scenic stream and waterfall from the mountains above.



Personnel faced enormous challenges while drilling and blasting for the roadway.

all creating an ever-changing set of challenges. If there ever was a testing ground for the risk management process, Operation Alaskan Road was it. Risk assessments were prepared, revised, and reviewed continuously. Assessments were briefed to everyone, every day, and followed explicitly. Oversight took on a new definition as every member of the team monitored all operations; everyone was a safety officer. And it worked, but it did not come easily.

Challenges

Because Annette Island has no infrastructure outside of Metlakatla's city limits, personnel, equipment, and supplies had to be brought to the island by barge or boat. There were many challenges.

By Sea. Equipment and personnel were transported by military watercraft several times every day. Global Positioning Systems (GPS) were installed to provide safer and more efficient travel routes. Prior to departure of any watercraft, "man overboard" drills were conducted and briefings were presented to ensure that all passengers knew exactly what to do in the event of an emergency. Water temperatures were extreme, and a passenger who fell overboard would quickly become incapacitated from the cold.

By Land. Access to the coastal project sites by land was a rugged, one-lane pioneer logging road cut into the steep mountainside during 1960s logging activities. Because of changes in elevation, rain quickly became sleet and snow midway through the 45- to 60-minute drive. During the first year of construction, vehicles frequently met nose to nose on treacherous mountain passes. To alleviate the difficulty this was creating, a two-way traffic pattern was implemented to keep everything flowing in only one direction at a time. Speed limits were established and strictly enforced. Radio communications were improved, and military police were assigned to provide better tracking and movement of equipment and personnel.

Equipment Maintenance and Fueling Operations. Hemlock Bay consisted of a K-span building that housed the maintenance facility, plus there was a motor pool facility and a fueling point. A vehicle junkyard was the most frequent source of spare parts, because shipment of new parts took precious time. The Marines, who operated the bulk fuel point, received fuel deliveries by barge. Fuel trucks then delivered fuel to equipment on the project sites and were in constant movement.

Medical. Annual rainfall in southeast Alaska averages 13 feet. Personnel were highly susceptible to what became commonly referred to as "the Ketchikan crud," an affliction characterized by upper respiratory and/or gastrointestinal upset. Medical officers were added to the duration staff, substantially improving the degree of first-line medical treatment. Medics staffed ambulances at the job sites to provide emergency care for workers. The United States Coast Guard, located in Ketchikan, treated illnesses or injuries that were more serious. Chaplains were always on the job site, providing not only spiritual inspiration but also hot soup and hot chocolate, which dramatically improved worker morale in the cold and rain.

Utilities. All electricity had to be generated on-site. Base Camp Wy Wuh consisted of Southeast Asia (SEA) huts that housed administrative offices, barracks, warehouses, tool rooms, a post exchange/base exchange (PX/BX), a dining facility, showers and latrines, and laundry facilities. A water treatment plant was constructed to produce clean drinking water, and a wastewater treatment plant was constructed as well. Military technicians monitored all operations and equipment to ensure the health and safety of personnel at the base camp.

Wildlife Considerations

Eagles are abundant on the island, and strict protection of their habitat by the Fish, Game, and Wildlife Service ensures their continued survival. Military operations were conducted while carefully observing the habitat of indigenous animals, plants, and wildlife. If an eagle were nesting, operations would be suspended pending the hatching of the chicks.

Environmental Considerations

An agreement was made with the Metlakatla Indian Community that the island would be as environmentally unspoiled upon departure as it was when the project started. The fuel point and maintenance facilities were in continuous operation, providing fuel to equipment by day and receiving barge shipments of replacement fuel by night. Even in the hurried pace of repairing equipment, any products spilled were immediately remedied. All vehicles were equipped with spill kits to use if they encountered a spill. Rank did not matter when a spill was discovered; it was reported and taken care of by personnel in the area.

During Operation Alaskan Road, nearly the entire length of the road had to be cut out of the side of the mountains.

Project Success

All hardships aside, Operation Alaskan Road provided participants an experience that one may encounter only once in a lifetime. It's not often you go to work surrounded by scenic mountain vistas, eagles in their natural habitat, clear blue lakes, and a serene beauty that can only be Alaska. The overwhelming safety record is a direct reflection on strong command oversight and individual commitment to success. The success of this project is absolute proof that risk management, when conducted properly, can produce dramatic, positive results.

On 6 August 2007, the road was turned over to the Metlakatla Indian Community in a lavish day-long celebration filled with native dancing, music, and cuisine. Military Service members were finally able to meet and visit with the people for whom the road was built. Until now, only a few staff members had been able to visit the village by boat. The Federal Highway Administration will complete the remaining paving, striping, guardrails, and road signage.

On 15 September 2007, the Missouri Army National Guard lowered its flag; the military mission was complete. Approximately 12,000 military Service members constructed a lifeline to the mainland for the people of the Metlakatla Indian Community. Training in a real-world setting provided the participants an opportunity to experience conditions impossible to replicate in a training facility.

But that's not where this story ends; to all those who participated, there is a sense of being a part of something you can't quite name: the inner pride of knowing all the hard work will significantly enhance the quality of life for a small group of Alaskan natives for generations to come. When asked what they would do with the road, the tribal elders replied, "We don't know yet, but our children will!"

Ms. Hall is a Safety Specialist at the MANSCEN Safety Office, Fort Leonard Wood, Missouri, serving the United States Army Engineer School and the 1st Engineer Brigade.

Endnote

[1] Muskeg, or peat bog, is like a soggy blanket that covers more than 10 percent of southeast Alaska. Consisting of dead plants in various stages of decomposition, it provides a home for a variety of plants that thrive in the wet, acid soil. In the summer, the flowers on many of them provide a carpet of soft color that contrasts with the muted greens and browns typical of muskeg. The soil conditions prevent large trees from growing, although stunted shore pine, cottonwood, some species of willow, and black spruce can be found. Stepping on muskeg is like stepping on a sponge, and the holes that form in it can be quite deep and dangerous. Construction in muskeg-laden areas sometimes requires removing the soil and filling the area with gravel. If the muskeg is not completely cleared to bedrock, then its high water content will cause buckling and distortion from winter freezing, much like permafrost.

Note: For more information on Joint Task Force Operation Alaskan Road, go to <http://www.elmendorf.af.mil/alcom/alaskanroad/index.asp>.