

# Engines of Change

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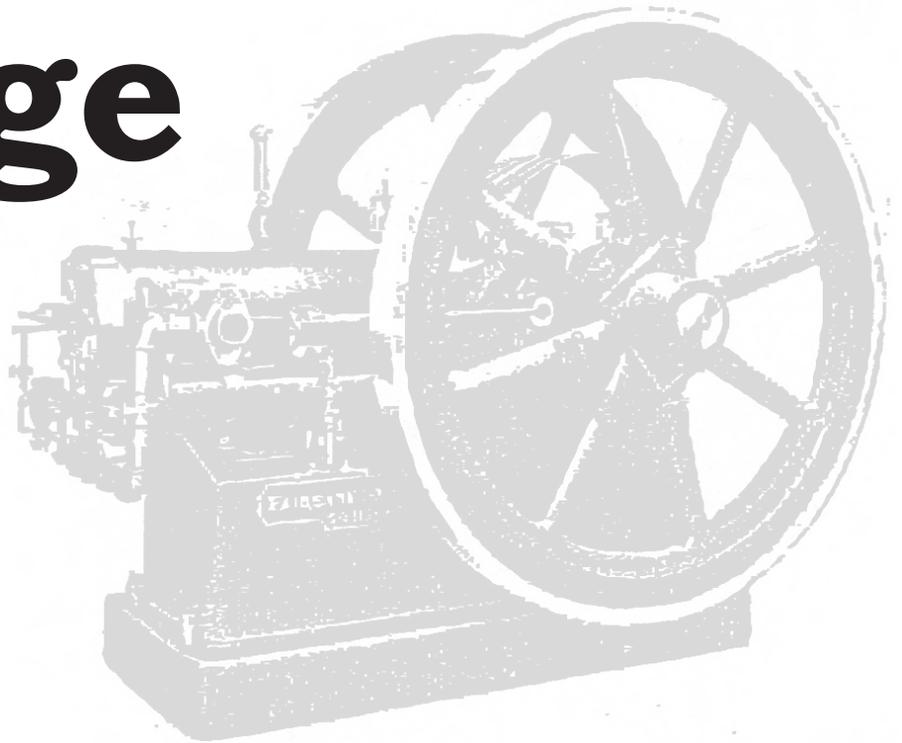
**E**ngines that once powered the Fortymile's first radio station will be the centerpiece of a new display at Fort Egbert National Historic Landmark.

The Fort Egbert Radio Station was constructed by the United States Army Signal Corps during the summer of 1908 as part of the Washington Alaska Military Cable and Telegraph System (WAMCATS).

Begun in 1900, the WAMCATS was the first electronic communication system to connect the military posts and settlements in Alaska to the rest of the country. At the time of its completion in 1904, the system included 1,396 miles of land lines and 2,128 miles of under-sea cable.

From the very beginning, Alaska's environment caused problems with the telegraph lines. Forest fires burned hundreds of miles of poles, while pack ice damaged the undersea cables. Snow and ice storms broke lines and on at least one occasion, a caribou got its antlers tangled in the wire.

Poor reliability and high repair costs led the Signal Corps to experiment with "wireless telegraphy" (what we now call radio), and in 1902 the Signal Corps installed the first operational American military radios in St. Michael and Point Safety, Alaska. These pioneer radio stations proved a success, and in 1908 the Signal Corps began construction of a network of radio stations across Alaska to act as a "backup" for the land lines.



The new stations proved so reliable and inexpensive to maintain that in 1909 large sections of land line were abandoned in favor of radio.

Radio technology was significantly more cumbersome in 1908 than what

we're accustomed to today. Each radio station had to be located on a hill next to a 200-foot transmission tower. The Fort Egbert Radio Station was constructed on Telegraph Hill, a mile and a half from the fort and town. When first constructed, the station was powered by a single-cylinder engine generating three kilowatts of power. This system proved to be underpowered, and in 1910 the

generating plant was upgraded to two 15-horsepower Fairbanks Morse Type "N" Special Electric Oil Engines, each capable of generating five kilowatts of power. These engines, which ran on gasoline, had flywheels five and a half



*BLM archeologist Steve Lanford stands next to the two Fairbanks Morse engines at the Fort Egbert Radio Station.*

feet in diameter and weighed over 6,000 pounds apiece.

The Fairbanks Morse engines powered the Fort Egbert Radio Station until it was destroyed by fire on December 20, 1921. The engines survived the fire largely intact and remain on the site to this day. They are the last of the WAMCATS radio engines still in public hands and the largest and best preserved artifacts associated with the Fort Egbert Radio Station.

Under a new agreement between BLM, the Alaska Office of History

and Archaeology, University of Alaska Museum of the North and the Eagle Historical Society and Museums, the State of Alaska will place the engines on long-term loan to BLM so they may be moved from the Fort Egbert Radio Station to a new display constructed on Fort Egbert within the Eagle Historic District. In their new home at the fort, the engines and displayed information should increase public understanding of the important role that WAMCATS played in the American settlement and development of Alaska.

## Parts of Jack Wade Dredge Moving to Chicken

The dredge on Wade Creek, commonly called the Jack Wade Dredge, will be dismantled this summer due to public safety concerns. But thanks to an agreement between the BLM, the Fortymile Mining Association and the State of Alaska, salvageable parts of the historic dredge will be moved to Chicken for an interpretive display.

Freighted up the Fortymile River from Dawson during the winter of 1906-07, the Jack Wade Dredge was one of the first bucketline dredges in the Fortymile. It first operated on the Walker and South forks before the North American Mining Company bought it in 1935 and moved it to Wade Creek on sleds and gas-driven tractors.

The dredge was shut down in 1941, shortly after its steam engines were replaced by diesel engines. During the years that followed, the dredge's condition deteriorated until BLM engineers in 2000 concluded that it posed a threat to public safety.

Fencing and wire mesh installed that year failed to keep the public from entering the dredge, and in 2003, the BLM decided that the dredge needed to be dismantled. A demolition contract was awarded last winter for work to be completed this summer.



*Jack Wade Dredge*

Recognizing the dredge's historic significance, the BLM has worked with the Advisory Council on Historic Preservation, the State Historic Preservation Office, the Alaska Department of Natural Resources and the Fortymile Miners Association to keep the dredge close to its Fortymile roots. Current plans include salvaging parts of the dredge and putting them on public display near the post office in Chicken. Interpretive panels will detail the dredge's long career.

## New Faces at the BLM

**Kristin Mull** recently joined the staff of the Eastern Interior Field Office as a fisheries biologist. Mull previously worked for the Yukon River Drainage Fisheries Association, where she handled various projects involving salmon management and subsistence. In the Fortymile Mull will focus on assessing and managing fisheries resources in the Fortymile National Wild and Scenic River.

Hydrologist **Ben Kennedy** joined the Eastern Interior Field Office staff last October after many years at the U.S. Geological Survey. A Fairbanks resident since 1988, Kennedy has worked on a variety of water resource and mining-related projects in Interior Alaska. His current projects include monitoring in-stream flow and water quality at selected sites in the Fortymile area.

### “Please Fill Out Survey”

Signs with this message will greet travelers at the BLM's Taylor Highway waysides this summer. Those who chat with the nearby student with the clipboard will learn that the University of Alaska Fairbanks is conducting a visitor survey under an agreement between the Department of the Interior, the BLM, and several universities.

The survey, similar to one conducted last year on the Steese Highway, focuses on how people use the Taylor Highway and the BLM facilities and public lands along it. The BLM hopes to learn more about where people are traveling on public lands, the general purpose of their trip, and the benefits they derive from their visits.

Participation in the survey is completely voluntary. Results will not only help the BLM with day-to-day management of public lands but aid in long-term planning efforts, such as the upcoming resource management plan (see page 1).