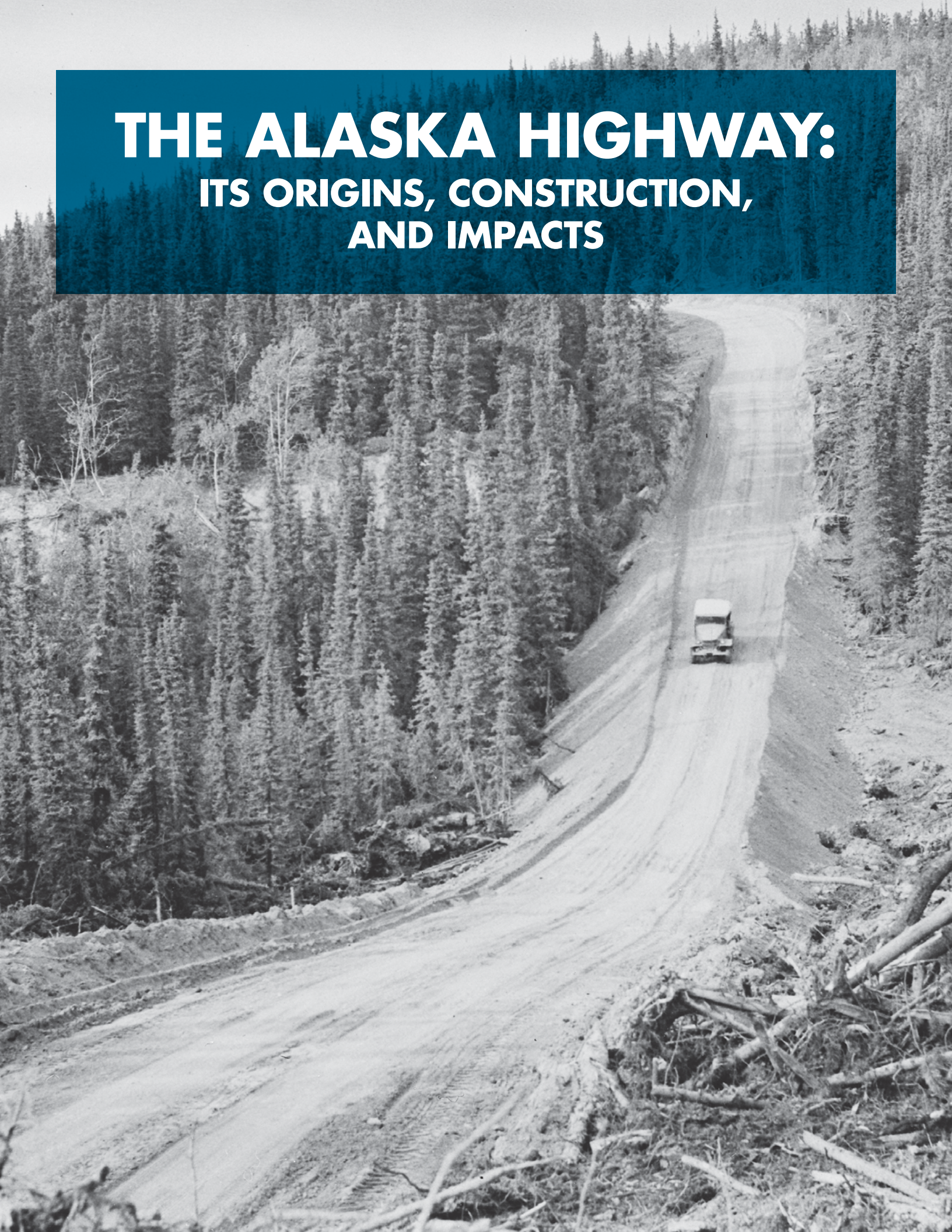
THE ALASKA HIGHWAY:
ITS ORIGINS, CONSTRUCTION, AND IMPACTS



On the cover: A stretch in the highway, 1942. *Courtesy of the U.S. Library of Congress Prints and Photographs Office of War Information*

This page: Caterpillar tractor with grader widening the roadway, 1942. *Courtesy of the U.S. Library of Congress Prints and Photographs Office of War Information*

INTRODUCTION

The construction of the Alaska Highway during World War II was an impressive undertaking that set a precedence in highway development and is considered one of the top ten construction achievements in the twentieth century. The highway had far-reaching impacts that affected not only the U.S. military and accessibility, but also resulted in technological, economic, military, and social changes.

Until the early 1940s, Alaska remained relatively isolated from the lower 48 states and was accessible via water and air routes rather than an overland route. Conversations of a land link between Alaska and the continental U.S. emerged as early as the Klondike Gold Rush in the 1880s and 1890s, but did not gain momentum until the 1920s and 1930s when the U.S. government became involved in the planning. Efforts were motivated by economic interests and spurred by the desire to extract Alaskan resources, including mineral mining, lumber, and fisheries.

During World War II, the construction of an inland route through Alaska was deemed a military necessity, and, on February 11, 1942, President Franklin D. Roosevelt authorized the construction of the Alaska Highway. Two major factors catalyzed the building of the highway: the Japanese expansion in Asia and the Pacific in the 1940s and the Japanese bombing of Pearl Harbor on December 7, 1941. The Alaska Highway, planned by the U.S. Army Corps of Engineers, was constructed to increase the defense of North America and to open supply routes for Canadian and U.S. military airfields along the Northwest Staging Route.

Many hands were required to plan and construct the highway and included the U.S. Army Corps of Engineers, Canadian and American civilian contractors, Army soldiers, and Alaska Native and Canadian First Nation members. The highway remains the only land route into the interior of Alaska and stretches through northern British Columbia (Highway 97), into the Yukon Territory through Whitehorse (Highway 1), and on to

Map of the Alaska Highway route

Alcan Highway construction. *Courtesy of the U.S. Army/University of Alaska Archives*

The 93rd Regiment working on the highway near Boyds Canyon. *Courtesy of the Timberlake Collection*

Soldier Refines Simms, Jr. with the Army's 97th Engineer Battalion shakes hands with Private Alfred Jalufka of the 18th Engineer Brigade. The soldiers met at Contact Creek in the Yukon Territory on October 25, 1942. *Courtesy of the U.S. Army Corps of Engineers/Alaska Highway Project*

Fairbanks, Alaska (Highway 2). It traverses through diverse natural eco-regions, from the Peace River Plains through boreal forests and mountain ranges.

In the pages that follow, we examine the origins, construction history, and transnational impacts of the Alaska Highway Corridor.

First, we will look at early modes of transportation along water and inland routes. We also discuss early efforts to establish a long-distance land link through Alaska during Russian occupation and in the early American period prior to the highway's construction in 1942.

Second, we will consider the extraordinary efforts of the members of the Colored Regiments in the highway's construction. Despite racial prejudice and tensions, these men excelled in their work and exceeded expectations.

Next, we will examine the struggles faced by the U.S. Army Corps of Engineers as they built on frozen ground. The unexpected environmental conditions in the north forced the Corps to devise innovative ways to traverse permafrost, muskeg, and rivers.

Alaska Road Commission worker. *Courtesy of the University of Alaska Anchorage, Harry and Norma Hoyt family papers*

Black soldiers working on the construction of the Alcan Highway.

Finally, we will turn our attention to the effects of the highway on coastal indigenous populations in both Canada and the U.S. and the fundamental changes that followed World War II in terms of social contact, economic relations, and government policies.

George Blondin and Little Edward Blondin from the Northwest Territories were hired to help find a route for the Canol Pipeline. *Courtesy of Yukon Archives, Finnie Family Fonds*

EARLY MODES OF TRANSPORTATION

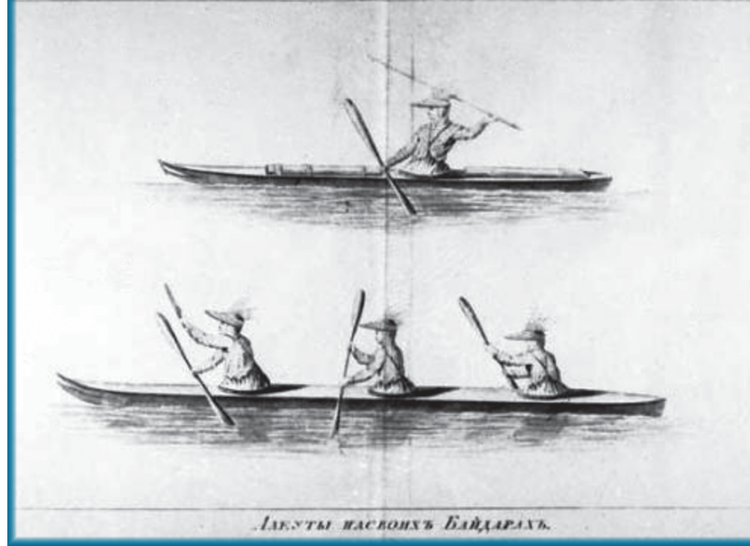
Thousands of years before the arrival of Russians and Americans to Alaska, Alaska Natives relied on coastal waterways, navigable and frozen rivers, and trails to travel between communities and resources. During the Russian and early American periods, fur traders and mining prospectors followed these traditional routes rather than forging new land routes. By the time the U.S. purchased Alaska from Russia in 1867, the 586,000 acres of territory supported less than five miles of wagon roads.

When Russians first occupied the land, they established communities along the coastline or along navigable rivers. Since their primary interest resided in the coastal fur-bearing marine resources, there was little reason to expand into the interior. Inland travel in the summer was typically conducted on foot or by packhorse along Native and game trails or by boat on navigable waterways. In the winter, both trails and frozen rivers were accessible for travel. Spring was usually a difficult season for travel as the terrain turned into swampy morass, slowing travel on foot and horseback.

EARLY TRAILS AND ROADS (AMERICAN PERIOD-1886)

After the U.S. purchased Alaska through the Treaty of Cession on March 30, 1867, the U.S. government granted exploration under the direction of the U.S. Army. Additionally, private explorers such as fur traders, prospectors, and adventurers began investigating the new landscape. Shortly after the purchase, gold and native copper deposits were discovered, and coal mines quickly opened. Other known resources included graphite on Atka Island, red ochre on Krenitizin, porphyry on Umnak, and naptha and amber on the Alaska Peninsula. When mining prospectors moved north to strike it rich in the late 1800s, they built trails, sled roads, and wagon roads to reach trading posts and mining camps.

Most of the information regarding mineral resources came from indigenous knowledge. However, other resources included the writings of Russian missionaries Father Veniaminov and Bishop Innocent, accounts from Russian naval



Sketches of two baidarkas and Aleut paddlers, 1826. *Courtesy of the Alaska State Library-Historical Collections*

Ferrying across the Klondike River, c. 1896-1913. *Courtesy of the Alaska State Library-Historical Collections*

officers, bulletins by the agents of the Russian Academy of Sciences, and special reports from scientists and mining engineers who conducted mineral surveys of Alaska.

In 1869, the first official U.S. expedition entered the interior of Alaska. Captain Charles Raymond of the U.S. Army Corps of Engineers explored the Yukon River to determine the location of the Hudson's Bay Company trading post of Fort Yukon in relation to the Canadian-U.S. boundary. Between 1883 and 1884, First Lieutenant Frederick Schwatka,

Captain Raymond, Corps of Engineers. *Courtesy of the Anchorage Museum at Rasmuson Center*

Lieutenant Schwarka. *Courtesy of the Alaska State Library-Historical Collections*

Lieutenant Henry T. Allen. *Courtesy of the University of Alaska Anchorage Consortium Library*

Three-ton nugget of native copper in Alaska. *Courtesy of National Archives and Records Administration Records of the Office of the Chief Signal Officer*

Klawock Cannery, 1878. *Courtesy of the Alaska Historical Society*

A party of miners going in by the Skagway or White Pass Trail, 1897.

Alaska Road Commission workers. *Courtesy of the University of Alaska Anchorage Archives, Harry and Norma Hoyt family papers*

Lieutenant Henry T. Allen, and Lieutenant William R. Abercrombie also led reconnaissance missions into the interior. Their maps and descriptions proved extremely valuable to government and private interests as well as road builders in the twentieth century.

THE GOLD RUSH AND THE DEVELOPMENT OF EARLY TRANSPORTATION ROUTES (1886-1904)

In the late nineteenth century, Alaska's population swelled with the arrival of miners, prospectors, and the growth of the fishing industry. In 1886, the discovery of profitable amounts of gold in the Fortymile River drainage on the U.S. side of the Alaska-Canada border set off the first gold rush in interior Alaska. Three new towns – Dawson City, Fortymile City, and Eagle – developed along the Yukon River near the Alaska-Canada border. Additionally, the area's salmon fishing boomed, leading to the construction of Alaska's first canneries in 1878. Although miners often carved their own transportation routes upstream to their claims, the influx of population and expanding economies inspired discussions of improving transportation networks.

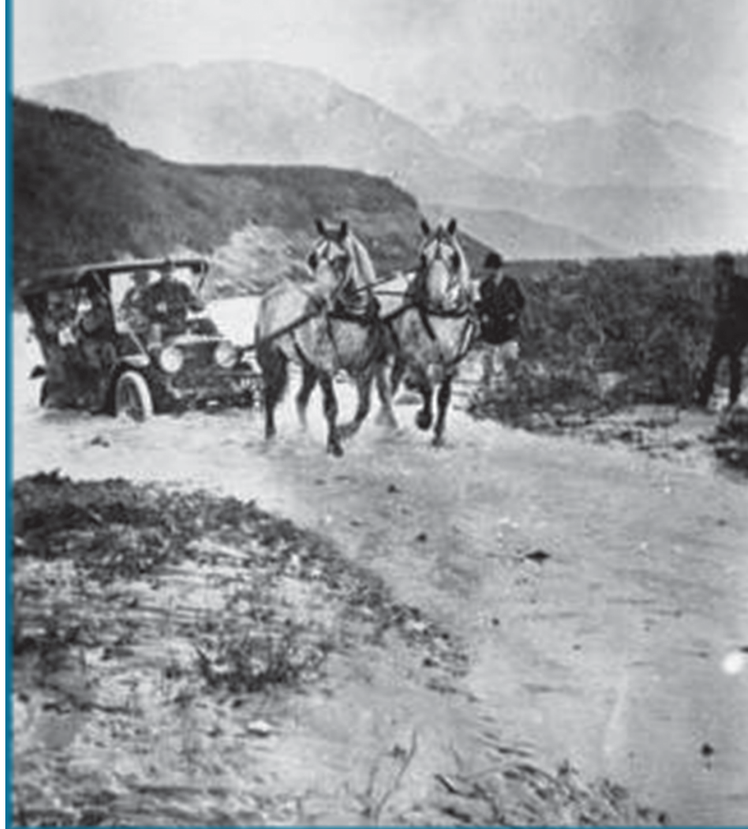
In 1884, U.S. Congress passed the first Organic Act, which made Alaska an official civil and judicial U.S. district. Local governments in Alaska were keenly aware of the minimal inland transportation access, and, following the passage of the act, they were quick to voice their concerns about regulation. Under the new regulations and protections enforced by the act, officials in Sitka, Eagle, Nome, and Juneau governments vented their concerns to the federal government about the inadequate roads that hindered their ability to enforce the law.

EARLY EFFORTS OF THE ALASKA ROAD COMMISSION (1897-1920s)

In 1905, the U.S. War Department created the Alaska Road Commission to examine infrastructure expansion in Alaska. At this time, roads were rudimentary and connected communities to dairy ranches, mines, and agricultural areas. By 1907, the commission flagged over 247 miles of winter trails on the Seward Peninsula, built 40 miles of road, upgraded 200 miles of existing trails, and cleared timber from 285 miles of new trail. Typical construction standards for roads and trails were 10 feet wide for light traffic trails and 16 feet wide for more active trails. With the passage of the Second Organic Act of 1912, Alaska gained territorial status, which permitted the U.S. budget to fund and manage Alaska road construction. With these new resources within reach, the Alaska Road Commission developed a road plan in 1913 and proposed a 10-year, $7.25 million road improvement project.

However, when the U.S. entered World War I in 1917, federal funding for building and maintaining roads and trails in Alaska became a low priority. On May 3, 1917, the Territorial Legislature passed an act creating a Territorial Board of Road Commissioners. This board established divisional boards for the road districts, and each included an elected chairman, secretary, and two appointed members. Despite the planning and the new divisional boards, by the end of 1919, the commission completed a modest 1,031 miles of wagon roads, 636 miles of sled roads, and 3,222 miles of trails from its ambitious 1913 road plan.

In the late 1920s, shortly after the end of World War I, the Alaska Road Commission prepared a new 10-year plan for road construction and maintenance. The major goal involved repairing and reconstructing existing roads that were neglected or abandoned during previous years of lean appropriations. The new proposal considered geologic and topographic conditions, populated areas, and locations of existing roads and resource explorations. The commission proposed the construction of 700 miles of arterial or feeder highways to connect emerging oil and mineral districts. Over the next 10 years, congressional appropriations were lower than the amounts requested. Despite this, work progressed on



Frank Shipp, teamster for the Alaska Road Commission, uses a team of horses to tow Bob Sheldon's automobile through water. *Courtesy of the Alaska State Library-Historical Collections, Bill Frame photograph collection*

Map showing connecting system of roads and trails proposed and constructed by the Alaska Road Commission. *Courtesy of the University of Alaska Fairbanks Archives*

THE ALASKA HIGHWAY TIMELINE

1867-1886

30 March 1867
U.S. purchases Alaska from Russia through the Treaty of Cession

1869
First official U.S. expedition sent into the Alaskan interior

1883-1884
U.S. military reconnaissance missions into the Alaska interior

1886
Discovery of gold in the Fortymile River drainage on the U.S. side of the Alaska-Canada border sets off first gold rush in the Alaska interior

MacDonald's proposed new highway link (marked in double hashed lines), which would significantly shorten the distance. The U.S. Army chose a different route.

several of the proposed arterial and feeder roads, albeit at a slower rate than anticipated.

The Alaska Road Commission played a significant role in the development of Alaska, and many of the members and leaders were commemorated when naming the highways. These include the naming of: Richardson Highway (named for Brigadier General Wilds P. Richardson), Steese Highway (named for Colonel James G. Steese), Elliot Highway (named for Major Malcolm Elliot), Edgerton Highway (named for Major General Glen E. Edgerton), and the Taylor Highway (named for Ike P. Taylor, who served as commission president from 1932 to 1948).

DEPRESSION YEARS IN ALASKA AND THE PROPOSED INTERNATIONAL HIGHWAY (1930-1941)

In the 1930s, the U.S. encountered economic downturns, decreased industrial production, and environmental crises, leading to the Great Depression. Despite the economic decline, both Presidents Herbert Hoover and Franklin D. Roosevelt kept transportation at the forefront of their plans for economic growth.

In 1930, President Hoover approved an act of Congress to set up and fund a commission comprised of both American and Canadian members to evaluate the feasibility of an inland route through Alaska and the Yukon Territory. In addition to increased accessibility, another primary goal was to encourage economic development and tourism. The Pacific-Yukon Highway was envisioned as a "highway to connect the northwestern part of the U.S. with British Columbia, Yukon Territory, and Alaska."

Donald MacDonald, Alaska Road Commission's senior highway engineer, was a strong proponent for developing a highway to connect Alaska with the lower 48 states. He argued that a road linking the territory to the continental U.S. was the only feasible means of extracting and economically transporting valuable Alaskan resources and goods. Furthermore, MacDonald reasoned that an international highway would attract new settlers and tourists while also providing construction jobs during a time of economic depression. The international highway that MacDonald originally envisioned featured a patchwork of roads that extended between Fairbanks and Seattle through Alaska, British Columbia, Yukon, and Washington. This route measured approximately 2,000 miles, with just 200 miles in Alaska. The estimated cost of the project was $14 million, with roughly 1,000 miles of new construction.

After Roosevelt took office as president in 1933, he developed the New Deal, which led to the creation of federal projects and the hiring of many unemployed Americans. Roads and transportation improvement projects were included in the New Deal plan, and the federal government was more generous when doling out funding for these projects.

MacDonald was appointed to the International Highway Commission by President Roosevelt to help determine the best route when developing the highway. The commission continued planning for the highway's construction and considered several route options in the 1930s, but contractors became overwhelmed by the imposing terrain and the complexity of the project. These struggles, in conjunction with conflicts over possible routes and costs and determining which country would pay for the construction, left the project idle. Proponents of the International Highway believed the potential military value of the highway was well worth the $14 to $20 million price tag. But in 1938, the U.S. Army Chief of Staff asserted that the road would have little military value. This assessment changed, however, when the U.S. entered World War II in December 1941.

Reconnaissance and Feasibility of an Inland Highway Connecting Alaska and the Lower 48 States

In 1931, MacDonald organized a reconnaissance and feasibility study for a long-distance highway route from McCarthy, Alaska, to Dawson City, Yukon. To emphasize his decision, MacDonald traveled the route by foot. As part of this study, MacDonald's archival research revealed that Tsar Alexander III of Russia proposed an international railroad across Siberia and Alaska in 1892. The proposal was later revived in a report made to his son, Tsar Nicholas II, in 1900 and was discussed again between railroad promoter E.J. Harriman and the Tsarist government. These plans were proposed long before Vice President Henry A. Wallace suggested an international transcontinental highway between the Americas, and possibly Asia and Europe. MacDonald hoped to revive this plan and wrote to the Soviet government to learn about new transportation routes and possible connections with Siberian highways. At the time, he was interested in linking Siberia with Nome via the Bering Strait. After MacDonald received negative feedback from the U.S. government, other engineers, and fellow members of the International Highway Commission, he revised his plan. The new plan focused on the construction of a highway to connect the western U.S. to Alaska from Hazelton, British Columbia, north through the passage between the coastal range and the Rocky Mountains and on into Fairbanks.

In the early 1930s, trapper and pioneer Clyde "Slim" Williams became a strong proponent of the plan for a highway linking Alaska to the lower 48 states. MacDonald persuaded Slim that a trip along the proposed route would help publicize the highway's potential. Slim received sponsorship from the International Highway Association of

A drawing of a Russian fur trading settlement on Kodiak, 1794.

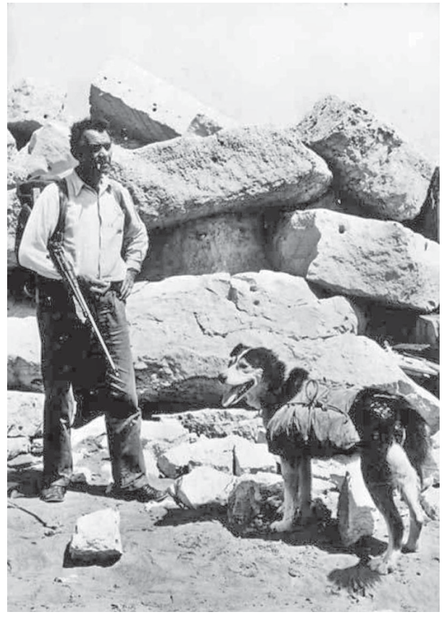
THE ALASKA HIGHWAY TIMELINE 1892-1913

1892
Tsar Alexander III of Russia proposes international railroad across Siberia and Alaska

1905
U.S. War Department creates Alaska Road Commission

1912
Second Organic Act passes, bringing Alaska into territorial status

1913
Alaska Road Commission develops road plan for the construction of the highway



"Slim" Williams, International Trail Blazer, and his lead dog, Rembrandt. *Courtesy of the University of Alaska Fairbanks Archives*

Alaska and the Yukon Territory in the winter of 1933 and began his trek down the proposed route via dogsled. On December 11, 1933, an article for the Uniontown News Standard recounted Slim's trip from the year prior and that he "started from Copper Center, November 20, 1932, without stove, tent or compass and with only the stars, the trees and the sun to guide him." His route carried him through Dawson City, Whitehorse, Atlin and Telegraph Creek, and after covering 1,800 miles through remote Alaska and British Columbia, he reached the small town of Hazelton, British Columbia.

Slim's highly publicized trip took over five months to reach the end of the then-existing highway system near Hazelton. The spring thaw made sledding impossible, leading Slim to mount four Model-T Ford wheels to his dogsled in Smithers, British Columbia. He then continued all the way to Chicago, Illinois, for the World's Fair and the 1933 Century of Progress Exposition to celebrate innovations in architecture, science, technology, and transportation. After the World's Fair closed for the season, Slim mushed to Washington, D.C., bringing the total distance of his journey to over 5,600 miles. He camped in a city park and spent the winter discussing Alaskan hot-topics and concerns with legislators. Slim even met with President Roosevelt to promote either a coastal or an inland route to improve the Northwest's economic base. At the time, the Canadian government did not perceive any value in allocating funds for the construction of a road since "no more than a few thousand people in the Yukon would benefit." Regardless, Slim's publicity stunt drew attention to the necessity of an overland route and garnered both national and international attention. In 1933, a commission of engineers reported favorably on the potential for construction of a highway, and Congress authorized the president to negotiate with the Canadian government, but again, nothing came of these negotiations.

By the end of the 1930s, international affairs affected U.S. opinion of the highway's construction. In 1937, Japan invaded China, inciting fear in Americans that Japan would continue expanding and eventually threaten invasion. In response to these concerns, Pacific coastal cities and labor organizations began pressing for the construction of an international highway. They argued that its construction would not only serve as a defense against Japanese aggression, but would provide a project for thousands of unemployed workers in the Depression years.

In 1938, President Roosevelt appointed a second International Highway Commission with both U.S. and Canadian members including Congressman Warren G. Magnuson, Governor Ernest Gruening, and former Governors Thomas Riggs and James Carey. This commission conducted extensive surveys of the proposed routes for the highway.

"Slim" Williams at the Chicago Century of Progress Exposition, 1933. Note the Model T wheels on the dogsled. *Courtesy of the University of Alaska Fairbanks Archives, Slim Williams Papers*

Americans favored MacDonald's "A" route, which traversed Prince George and Hazelton along the Stikine River to Whitehorse, Dawson City, and Fairbanks. Canadians, on the other hand, favored the "B" route starting from Prince George, following the Rocky Mountain Trench up to Dawson City and on to Fairbanks. The "A" route, though widely advocated by MacDonald and Slim, was deemed too vulnerable to possible enemy attack due to the lack of airbases along the route. Additionally, the route contained steep grades, heavy snowfall, and adverse environmental conditions, which could lead to construction delays. The "B" route, on the other hand, offered a safer inland alternative that was 209 miles shorter with lower elevations. Regardless of the arguments made for both "A" and "B" routes, in 1942, the U.S. Army Corps of Engineers selected a third choice, the "C" route. This latter option was chosen as the most practical since it was further inland and away from enemy planes near the coast while simultaneously linking the airfields of the Northwest Staging Route.

Northwest Staging Route

The threat of international war in the late 1930s and early 1940s led to a greater awareness of improving transportation systems and connecting population centers and military facilities. The Pacific Coast was vulnerable to both air and sea attacks, and, in 1939, Congress passed a bill, later known as the Initial Defense Appropriation Act, to provide federal funding to states and territories for military readiness. In Alaska, the bill increased the territory's military build-up and led to the development of Army airbases in Anchorage and naval airbases at Kodiak, Sitka, and Unalaska. The presence of new military installations increased the volume of vehicular traffic, which taxed the territory's limited roads system. From 1941 to 1945, transportation projects to improve Alaska's roads totaled approximately $600 million. This figure was 20 times the amount spent in the territory from 1867 to 1940.

Northwest Staging Route, no date. *Courtesy of the Yukon Archives, Department of Defense Collection*

The Canadian Department of Transportation surveyed the Northwest Staging Route with the broad goal of improving seven existing airfields between Edmonton and Fairbanks for year-round use. The development of an air route to Alaska accelerated after the Japanese attack on Pearl Harbor on December 7, 1941, and the pace of construction along the Northwest Staging Route quickened in response to American demands. By April 1942, Canada admitted that U.S. financial assistance and labor were essential for the completion of the Northwest Staging Route airfields, and on June 20, 1942, the U.S. Army Air Force activated the Air Transport Command. Finally, after years of discussion and planning, the Canadian and U.S. governments reached an agreement on the construction of an inland military road.

THE ALASKA HIGHWAY TIMELINE 1917-1931

1917
U.S. becomes involved in WWI and constructing roads and trails becomes a federal priority

1919
Alaska Road Commission completes a modest portion of its road plan developed in 1913

1930
President Hoover approves an act of Congress to establish the International Highway Commission comprised of members to evaluate feasibility of an inland route through the Yukon Territory and Alaska

1931
MacDonald, Alaska Road Commission's senior highway engineer, organizes reconnaissance study for a long-distance highway in Alaska

29th Topographic Technical Sergeant Neilsen, Private First Class Dooley standing near signal on Mount Baldy, August 1942. *Courtesy of the National Archives Bureau of Public Roads*

THE BOMBING OF PEARL HARBOR AS IMPETUS

After the attack on Pearl Harbor, the U.S. formally entered World War II. This attack, coupled with Japanese threats to the western coast of North America and the Aleutian Islands, exposed the vulnerability of Alaska to seaborne attacks and invasion. While a civilian road connecting Alaska to Canada was discussed for decades before the war, the immediate danger posed by potential future assaults by Japan made the construction of the Alaska Highway a strategic military priority. With the urging of the U.S. Army, Congress authorized the highway's construction on February 2, 1942. Canada agreed to the construction of the highway as long as the U.S. bore the full cost and ensured that the road and other facilities on Canadian land be turned over to Canadian authority after the war ended. President Roosevelt approved the project on February 11, 1942, and on March 18th, Canada and the U.S. reached an agreement. Canada supplied the right-of-way and waived customs duties, and the U.S. built the road with the agreement to maintain it during the war.

CONSTRUCTING THE ALASKA-CANADA (ALCAN) MILITARY HIGHWAY

The U.S. Army Corps of Engineers selected a route based on the location of the Northwest Staging Route series of airstrips, as well as airport and radio ranging stations in Alberta, British Columbia, the Yukon, and Alaska. The chosen "C" route ran from Edmonton to Whitehorse and connected to the existing Richardson Highway at Delta Junction before continuing on to Fairbanks.

On February 6, 1942, just two days after receiving the assignment, Brigadier General Clarence L. Sturdevant, the Assistant Chief of Engineers, submitted a plan for initial surveys and construction, stating that:

> *"A pioneer road is to be pushed to completion with all speed within the physical capacity of the troops. The objective is to complete the entire route at the earliest practicable date to a standard sufficient only for the supply of troops engaged on the work. Further refinements will be undertaken only if additional time is available."*

The general set the target for the completion of the highway in fall 1942, and the Corps quickly moved forward with its mission to build a pioneer road (or an initial road layout) suitable for Army supply trucks. Surveyors were tasked with connecting the pioneer road to airfields in the Yukon Territory and Alaska while avoiding steep terrain and muskeg. Following the construction of a pioneer road, civilian contractors working for the U.S. Public Roads Administration then upgraded the road to the status of a permanent highway. Initially, the project was referred to as the Alcan Highway, but on July 19, 1943, Canada and the U.S. exchanged diplomatic notes formally naming it the Alaska Highway.

SURVEYING A PIONEER ROAD

In February 1942, Company D of the 29th Engineer Topographic Battalion and Company A of the 648th Engineer Topographic Battalion began surveying the route despite their limited knowledge of the area. Teams were given a single map and aerial photos of the area between Dawson Creek and Fort Nelson. Due to the lack of adequate mapping, detailed reconnaissance, soils data, and hydraulic information, the U.S. Army Corps hired many First Nations members to share their intimate knowledge of the northern terrain and act as guides in the Yukon, British Columbia, and Northwest Territories wilderness. The promise of wage work proved to be a strong lure for many First Nations men who ultimately pulled away from the traditional economy of hunting and trapping.

Corps survey teams surveyed an average of two to four miles a day and provided general locations and bearings through the wilderness. Surveying the pioneer road was a difficult task and required several layers of survey, with each party typically consisting of one officer and nine surveyors. The first survey group to enter the forest split up into teams and ventured out for one or two miles to see which alignments held the greatest potential. A second survey team followed the first and ran a level survey, creating a trail by marking a white center line and flagging red ribbons to bushes and trees. Shortly behind them, the transit team recorded the centerline and elevations of the proposed road. Finally, lead bulldozers followed the flagging ribbons left by the second survey team. Using these methods, seven engineering regiments were located at various points along the route and each was responsible for constructing 350-mile sections of the road.

Most bridges built on the pioneer road were made of nearby timber and typically did not last through the winter. *Courtesy of the Office of History, Headquarters, U.S. Army Corps of Engineers*

Chow time for the 29th Topographic engineers near Squanga Lake.

29th Topographic Field Camp. *Courtesy of National Archives Bureau of Public Roads*

THE ALASKA HIGHWAY TIMELINE 1932-1941

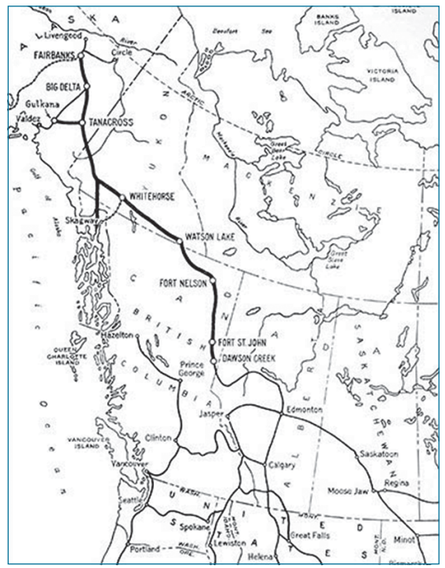
20 November 1932
Clyde "Slim" Williams begins his highly publicized trip along the proposed international highway route and arrives at the 1933 Century of Progress Exposition

1938
President Roosevelt appoints a second International Highway Commission

1939
U.S. Congress passes the Initial Defense Appropriate Act for federal funding to states and territories for military readiness

7 December 1941
Japan bombs Pearl Harbor

African American soldiers were more likely to be assigned more difficult work than their white counterparts, and clearing forests to make way for the highway was exhausting work. *Courtesy of the Office of History, Headquarters, U.S. Army Corps of Engineers*



Map of the Alaska Highway after the Public Roads Administration surveyed the area.

ENGINEERING REGIMENTS

The meandering character of the Alaska Highway belied the speed and determination with which it was built. The construction of the 1,650-mile pioneer road was strenuous and required the labor of 10,000 U.S. Army Corps of Engineers and 6,000 civilians, hired by the U.S. Public Roads Administration.

The first engineer construction regiment, the 341st Engineer General Service Regiment, arrived on March 10, 1942, at Dawson Creek, British Columbia. With no time to spare, the regiment headed north to St. John with the initial goal to get past the Peace River before the spring thaw. By June 1942, six additional engineer regiments joined the effort, each having received basic training in cold weather construction and engineering. Each regiment was assigned a strip of land measuring approximately 350 miles long and was charged with reaching the next regiment's pioneer road before winter set in. The seven regiments involved in the construction of the Alaska Highway were:

- 18th Engineer Combat Regiment
- 35th Engineer Combat Regiment
- 93rd Engineer General Service Regiment (colored)
- 95th Engineer General Service Regiment (colored)
- 97th Engineer General Service Regiment (colored)
- 340th Engineer General Service Regiment
- 341st Engineer General Service Regiment

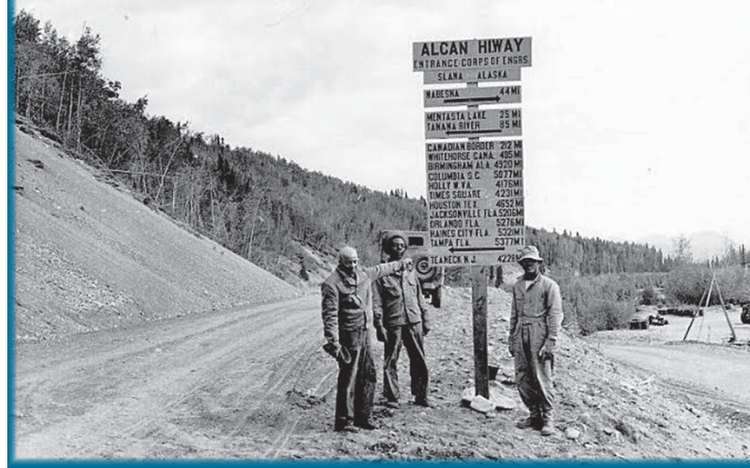
The U.S. Army Corps of Engineers initially assigned four white regiments, with the help of civilian workers from the Public Roads Administration, to build the highway. However, they quickly realized that they could not complete the project within a year as planned unless they recruited additional troops. In the spring of 1942, the U.S. Army reluctantly sent nearly 5,000 black soldiers to Alaska and Canada's northwest to work on two of the biggest construction projects of World War II: the 1,650-mile-long Alaska Highway and the Canol Pipeline to supply Canadian oil to the U.S. military in Alaska.

The newly formed "Negro" or "colored regiments" comprised four segregated Engineer General Service Regiments: the 93rd, 95th, 97th and 388th. These were the first African American units sent abroad during World War II with the first two regiments deployed to northern British Columbia and the Yukon Territory, the 97th to Alaska, and the 388th to northern Alberta and the Northwest Territories. Barred from combat service in 1942, most of the black soldiers came from farming communities in the Deep South and had never seen snow before. When they left their southern training camps on troop trains, most had no idea of their final destination or of how they would be treated when they arrived.

AFRICAN AMERICAN OR COLORED REGIMENTS

Japan has fired upon the United States, our country. We, all of us, black and white, Jew and Gentile, Protestant and Catholic, are at war, not only with Japan, but also with Hitler and the Axis powers. What shall the Negro do? There is only one answer. He must fight. He must give freely and fully of his blood, toil, tears and treasure to the cause of victory. … We are citizens of the United States and we must proudly and bravely assume the obligations, responsibilities and duties of American citizens. … Moreover, the Negro has a great stake in this war. It is the stake of democracy – at home and abroad. Without democracy in America, limited though it be, the Negro would not have even the right to fight for his rights.

– A. Philip Randolph, founder of the Brotherhood of Sleeping Car Porters



African American soldiers at the signpost of the Alcan Highway entrance for the U.S. Corps of Engineers. *Courtesy of William E. Griggs*

African American soldiers working on the highway. *Courtesy of U.S. Army/University of Alaska archives*

Black engineers constructing a trestle bridge during the construction of the highway. *Courtesy of the Anchorage Museum of History and Art*

THE ALASKA HIGHWAY TIMELINE

1942

6 February 1942
Brig. Gen. Clarence L. Sturdevant, the Assistant Chief of Engineers, submits plans for initial surveys of construction of the highway

11 February 1942
President Roosevelt authorizes construction of the Alaska Highway

8 March 1942
Construction equipment arrives and is unloaded from trains in Dawson Creek to begin work on the highway

10 March 1942
The 341st Engineer General Service Regiment arrives at Dawson Creek, British Columbia, to begin working on the highway planning and construction

Roadbuilding through the northern bush. *Courtesy of the U.S. Army Corps of Engineers*

A surveyor from the 93rd Regiment helps select the route of the highway in the Yukon Territory. *Courtesy of the Office of History Collection, U.S. Army Corps of Engineers*

While the fight for African American civil rights is traditionally linked to the 1960s, historians often look to the war and the discriminatory experiences and treatment of black soldiers as the incentive for the movement. The war tested America's dedication to its democratic ideals, specifically in the treatment of black soldiers. The onset of the war brought into sharp contrast the rights of white and black American citizens, particularly in the U.S. military. The War Department's objections to military integration and the enlistment of African Americans are best articulated by Secretary of War Harry Woodring, who stated, "The enlistment of Negroes . . . would demoralize and weaken the effectiveness of military units by mixing colored and white soldiers in closely related units, or even in the same units." These beliefs led to the creation of only four segregated U.S. Army units under which African Americans could serve.

Additionally, on October 9, 1940, the War Department announced its official policy toward African Americans in the military, which stated:

> *The policy of the War Department is not to intermingle colored and white enlisted personnel in the same regimental organizations. This policy has proven satisfactory over a long period of years and to make changes would produce situations destructive to morale and detrimental to the preparation of national defense. … Furthermore, the intermingling of races in messing and housing would not be a variation from well-established policies of the department, but it does not accord with the existing customs of the country as a whole.*

Prior to 1940, nearly 30,000 black men tried to enlist in the U.S. Army, but were turned away. Inductee tests for military capabilities were heavily skewed and showed a negative bias toward black soldiers. The Army General Classification Test, which set the military standard for recruits, measured a recruit's level of reading and comprehension with Class 1 as the highest level and Class 5 as the lowest. The educational disadvantages of southern blacks led the Army to place a disproportionate number of African Americans in pick-and-shovel units. African Americans from the northern regions typically had access to better educational opportunities and were deemed best suited for technical and combat units. This level of inequality gave rise to black organizations and leaders who challenged the status quo and demanded greater involvement in the U.S. military and an end to the military's segregated racial practices.

Despite racial bias, the U.S. Army faced a severe labor shortage, leading the Army to lower literacy requirements and introduce remedial educational courses. The soldiers assigned to these courses spent 18 hours a week on reading, language, and mathematics, while the remainder of their schedules were dedicated to military history. The passage of the Selective Training and Service Act of 1940, also known as the Burke-Wadsworth Act, sought to create a population balance in the Army but failed to address the issue of segregated military units.

Brigadier General Simon Bolivar Buckner Jr., who was responsible for Alaska's defense, initially tried to bar African American men entirely from his area of operations. Buckner's objections focused on the possibility of miscegenation or interracial relations between the African Americans soldiers and indigenous women. In a letter to Brigadier General Clarence Sturdevant, the head of the highway project for the Army Corps of Engineers, Buckner wrote:

> *The very high wages offered to unskilled labor here would attract a large number of them and cause them to…settle after the war with the natural result that they would interbreed with the Indians and Eskimos and produce an astonishingly objectionable race of mongrels that would be a problem here from now on. I have no objection whatever to your employing them on the roads if they are kept far enough from the settlements and kept busy and then sent home as soon as possible.*

Buckner's immediate superior, Lieutenant General John L. DeWitt, the Commanding General of the Western Defense Command based in San Francisco, also agreed with these sentiments. The American Secretary of War and the Governor of Alaska similarly opposed sending black troops to the far north, arguing that they would be unable to withstand the cold temperatures, which could drop as low as -70 Fahrenheit.

Despite these attitudes, the need for additional labor was so great that the Army reluctantly approved sending African American men to work on the Alaska Highway project. To placate Brigadier General Buckner, only two of the three African American units, the 93rd and 97th Regiments, were sent to Alaska. The 95th and 388th Colored Regiments were sent to Canada.

THE 93RD, 95TH, 97TH, AND 388TH COLORED REGIMENTS

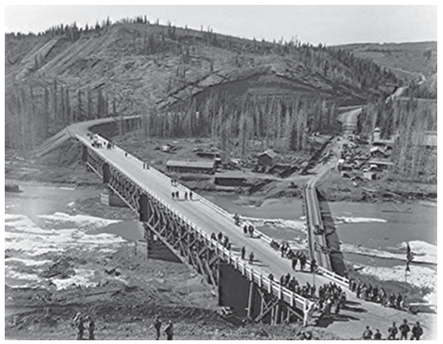
For many African Americans in the South, life in the Army represented the potential for improvement in their standards of living. However, many became disheartened when they realized that racial discrimination continued into military life. The members of the black regiments sent to Alaska and the Canadian Northwest faced racial discrimination not only from the white officers assigned to their units, but from local police and residents in the surrounding areas.

93rd Regiment

The segregated troops of the 93rd Regiment underwent 12 weeks of training. In the first two weeks of the program, recruits focused on calisthenics, drills, military discipline, hygiene

Men back at camp repairing tires and trucks, 1942. *Courtesy of the U.S. Library of Congress Prints and Photographs Office of War Information*

Members of the 95th Regiment carrying logs for the construction of the bridge cross the Sikanni Chief River. *Courtesy of the Office of History, Headquarters, U.S. Army Corps of Engineers*



Construction of the Sikanni Chief River Bridge between Fort St. John and Fort Nelson. *Courtesy of the Office of History, Headquarters, U.S. Army Corps of Engineers*

Bulldozer knocking down trees for the roadway of the Alcan Highway, 1942. *Courtesy of the U.S. Library of Congress Prints and Photographs Office of War Information*

THE ALASKA HIGHWAY TIMELINE

1942

April 1942
Canada accepts U.S. financial assistance and labor for completing the Northwest Staging Route airfields

11 April 1942
Construction officially begins on the Alaska Highway

29 April 1942
18th Regiment reaches Whitehorse

End of April 1942
341st Regiment arrives at Dawson Creek to work on the highway between Fort St. John and Fort Nelson

Four-inch pipe being laid for the Canol project. *Courtesy of the Yukon Archives*

and sanitation, and care and maintenance of equipment. Over the next six weeks, soldiers learned how to fire rifles and pistols, but more important to their work on the highway, they studied carpentry, welding, and the use of hand tools. In the final four weeks of training, soldiers worked in the squads and platoons that they were later assigned. Four days after leaving Camp Livingston, Louisiana, the train carrying the first 1,240 enlisted members of the 93rd Regiment stopped in Seattle, Washington, leading its officers to believe they were going to board a ship for the Pacific Theatre. Instead, and to their surprise, the train continued north to Canada to construct 240 miles of the pioneer road for the Alaska Highway.

Soldiers in the 93rd Regiment faced great difficulties when it came to lodging. In addition to the daily work on the highway, soldiers were required to move their tents every three to four days on the pioneer road. These conditions persisted until the regiment moved to Morley Bay, Yukon, and into barracks with indoor latrines and showers.

> **"Whenever we stopped, the local Canadians gathered around and stared at us. … I don't think many had seen black boys before."**
>
> – Unknown officer. Courtesy of Robert Platt Boyd, Jr., *Me and Company "C"* (1992)

95th Regiment

The 95th Regiment arrived in Dawson Creek (known as Mile Zero on the Alaska Highway) from Fort Bragg, North Carolina, on May 29, 1942. The 1,225 soldiers traveled with heavy equipment, including tractors for the highway's construction. However, most machinery was given to the white 341st Regiment. With little equipment to work on the highway, the 95th became more determined to prove the U.S. Army generals wrong in their

> **"The 95th got more of the dirty work to do than any regiment…The old Southern principle of keeping Negros as slaves is still being practiced."**
>
> – Corporal Jonathan Welch in a letter home

expectations of the black regiments. Without the machinery, the 95th used shovels, axes, wheelbarrows, and their own hands to fulfill their tasks. A notable contribution by the 95th was the construction of a bridge built across the 220-feet-wide Sikanni Chief River at milepost 119, midway between St. John and Fort Nelson. Using only hand tools to set the trusses, the regiment completed the project in just 72 hours, working overnight while wading in the chest-high, icy waters of the Sikanni Chief River.

97th Regiment

After initial training in basic military operations and construction engineering fundamentals at

Caterpillar tractor cutting a road through the forest for the highway, 1942. *Courtesy of the U.S. Library of Congress Prints and Photographs Office of War Information*

Camp Blanding, 1,185 enlisted men of the 97th Regiment travelled on two trains from Pensacola, Florida, to Seattle, Washington. At the Port of Seattle, the 97th boarded the SS David W. Branch, an Army transport ship, with heavy equipment. Having no idea of where they were destined, the regiment sailed to Valdez, Alaska, where a temporary camp was set up in the harsh winter. On the open sea, a Navy warship escorted the slow moving vessel while soldiers with rifles patrolled the deck, scanning the skies for Japanese warplanes. The men of the regiment were forced to sit in the frigid environment for a full month since the frozen ground made trails impassible. Unlike the 93rd and 95th Regiments, the 97th was well equipped with 24 bulldozers, and a single operator was tasked with training and guiding the men to drive the dozers.

After the weather warmed up, the regiment was transferred over the Richardson Highway to Slana. When Fairbanks residents learned that black troops were working in Alaska, many outright opposed the decision and circulated a petition at the municipal level asking that the African American soldiers be transferred to a "country and climate more closely resembling their natural habitat." However, their plea remained unanswered and subsequently, a section of the Alaska Highway near Slana became known as "The Negro Road" to the residents of Fairbanks.

> **"We were on the train six days before we got to Dawson Creek and at all the little towns along the way, people came to greet us… it made us feel pretty good."**
>
> – Master Sergeant George H. Burke, quoted in Harold Griffin's *Alaska and the Canadian Northwest: Our New Frontier* (1944)

Members of the 388th wait on a barge on the dock in Waterways before going to Fort Smith. *Courtesy of Archives Canada*

388th Colored Regiment

The 388th Regiment left Camp Claiborne, Louisiana, in early June 1942 on three trains bound for northern Canada to work on the Canol Pipeline. When the 388th Regiment arrived in Waterways, Alberta, its 1,218 enlisted men made up half of the troops working on the Canol project. Despite their contributions to the project, members of the 388th were transported to Camp Prairie in northern Alberta to reside in the segregated base outside of town.

As the war raged on, the military needed additional petroleum. The project led to more drilling of the Norman Wells oil fields in the Northwest Territories, the construction of an oil refinery in Whitehorse, Yukon, and the laying of a pipeline and service road between the two locations. Although located in Canada, American troops oversaw the construction of the four-inch diameter pipeline between 1942 and 1944. At the project's completion, oil could be transported from the oil fields in the Northwest Territories to Whitehorse, Watson Lake, and Fairbanks.

Members of the 97th Regiment ride in Pullman sleeping cars on their way to Alaska. *Courtesy of William E. Griggs*

> **"We slept on the ground in pup tents the first night."**
>
> – First Sergeant Wansley Hill

Many members of the 388th Regiment donned local Indian attire while working in Canada. *Courtesy of Archives Canada*

A soldier working on the highway faces frigid temperatures. *Courtesy of Alaska State Archives*

THE ALASKA HIGHWAY TIMELINE

1942

June 1942

Seven engineer regiments on the ground in Alaska and Canada: 18th Engineer Combat Regiment, 35th Engineer Regiment, 93rd Engineer General Service Regiment (colored), 95th Engineer General Service Regiment (colored), 97th Engineer General Service Regiment (colored), 340th Engineer General Service Regiment, and 341st Engineer General Service Regiment

June 1942

95th Regiment reaches Dawson Creek

June 1942

388th Colored Regiment begins work on the Canol Project in Canada's Northwest Territories and northern Alberta

> The recruiting announcement for the Canol Pipeline project warned of the adverse conditions in the North and read:
>
> **THIS IS NO PICNIC**
>
> **Working and living conditions on this job are as difficult as those encountered on any construction job ever done in the United States or foreign territory. Men hired for this job will be required to work and live under the most extreme conditions imaginable. Temperatures will range from 90 degrees above 0 to 70 degrees below zero. Men will have to fight swamps, rivers, ice and cold. Mosquitoes, flies and gnats will not only be annoying but will cause bodily harm. If you are not prepared to work under these and similar trying conditions**
>
> **DO NOT APPLY**

Bulldozer buried by a landslide while working on the Alcan Highway. *Courtesy of the U.S. Army Corps of Engineers*

NORTHERN LANDSCAPE CONDITIONS

The construction of the highway consisted of two parts. First, the U.S. Army Corps of Engineers surveyed and constructed a pioneer road at the site. The Corps divided the area into two distinct sectors: the Northern Sector, with headquarters at Whitehorse; and the Southern Sector, with headquarters at Fort St. John. Crews worked from both ends of the highway and struggled against numerous adverse conditions, including cold temperatures, mud, river crossings, frostbite, insect swarms, long hours, and isolation. Following the construction of the pioneer road, the Public Roads Administration brought it up to civilian highway standards.

The working conditions were demanding for all parties involved. Some men arrived in the North after living their entire lives in the southern states and for the first time faced frigid temperatures with minimal shelter. Due to the mobile nature of the work, engineering regiments slept in six-person pyramid tents or in prefabricated metal structures called Quonset huts. These temporary structures were often disassembled, moved, and reassembled as highway construction progressed. Some regiments on the Canol Pipeline project in the Yukon Territory slept in portaseal huts, a Canadian version of wood frame huts, heated with improvised oil drum stoves.

In addition to weather-related challenges, troops also contended with challenging northern geology. The Corps frequently encountered unstable soils caused by permafrost and glacial ice, muskeg and sphagnum bogs, and frost blisters. Initially, the Army faced extreme hazards with thawed permafrost. When bulldozers scraped away topsoil and the vegetative layer above the frozen earth, the soil and ice partially melted and formed a cold muck under the heavy machinery. To stabilize the mud, the engineers laid "corduroy" or alternating layers of brush and logs, topped off with a layer of gravel under the asphalt to ensure structural support. For example, between May and June in 1942, some 100 miles between Burwash Landing and Koidern, Yukon, became nearly impassable when the permafrost thawed and was no longer protected by a layer of vegetation. A corduroy road was built to restore the route, and, to this day, corduroy still underlays old sections of highway in the area. Drainage trenches and diversion berms were also constructed upslope of the highway embankments to control seepage during seasonal thaw. Wooden stave pipe culverts were also common tools and usually built using the Engineer Regiments' sawmills. These culverts were placed under a protective evergreen brush layer, which encouraged airflow to prevent logs from dry rot.

The Army employed a similar strategy to traverse muskeg along the pioneer road. A cousin of permafrost, muskeg contains a peat-like organic matter overlaying a permanently frozen bog, and it wreaked havoc on jeeps and other vehicles working on the route. To prevent vehicles from sinking into the muskeg, engineers developed corduroy platforms using crisscrossed logs to create a lattice-like feature. This process dispersed the weights of heavy vehicles to prevent sinking into the bogs.

Even decades after the construction of the roadway, the northern climate continues to impact the Alaska Highway. Modern challenges include differential settlement, solifluction or gradual movement of wet soil, roadside drainage failures due to faulty gravel fills, malfunctioning drainage trenches and diversion beams, and unpredictable freeze-thaw cycles, which burden ongoing maintenance. These struggles have led to creative engineering solutions. Geotechnical engineers at the Yukon Department of Highways and Public Works have begun experimenting with plastic cooling pipes and tubes such as thermosiphons, as well as insulation sheets to vent out heat using liquid carbon dioxide through cycles of evaporation and condensation. These methods are often coupled with replacing the highway with lighter-colored asphalt, reinforcing thicker embankments with larger gravel and rocks that help circulate cooler air, and adding layers of insulation such as foam.

Example of a corduroy road. *Courtesy of Missouri University of Science and Technology*

An early camp along the highway in the northern regions of Alaska, 1942. *Courtesy of the U.S. Library of Congress Prints and Photographs Office of War Information*

Pulling trucks out of the water, c. 1942. *Courtesy of the Yukon Archives, Fonds Collection, 99/41 #1*

Wooden stave pipe culvert. *Courtesy of the Missouri University of Science and Technology*

Challenges of northern construction and corduroy roads. *Courtesy of the U.S. Army Corps of Engineers*

THE ALASKA HIGHWAY TIMELINE

1942-1946

20 June 1942

U.S. Army Air Force activates the Air Transport Command

28 October 1942

U.S. Army Corps of Engineers completes the pioneer road and the seven U.S. Army regiments completed the highway

20 November 1942

Opening ceremonies of the pioneer road at Soldier's Summit

1943

Public Roads Administration rebuilds the road and turns it into a two-lane, gravel highway

1 April 1946

Canadian Department of Public Works assumes responsibility for the Canadian portion of the Alaska Highway

Grading the roadway along the Alcan Highway, 1942. *Courtesy of the U.S. Library of Congress Prints and Photographs Office of War Information*

Caterpillar tractor pushing grader over a section of the highway, 1942. *Courtesy of the U.S. Library of Congress Prints and Photographs Office of War Information*

SPECIFICATION

Clearing: 32 feet wide minimum
Grade: 10% maximum
Curves: 50 foot radium minimum
Surfacing: 12 feet minimum
Shoulders: 3 feet minimum
Ditch depth: 2 feet
Crown: 1 inch per foot maximum
Bridges: Single lane with H15 minimum loading

PLAYING "LEAPFROG"

Trains in Dawson Creek began unloading construction equipment and supplies on March 8, 1942, with the first construction troops arriving a couple of days later on March 10th. Within a couple of months, most units were assigned their tasks and began working on 350-mile sections of the pioneer road. Within each regiment, a leapfrog method was employed in which one team graded an assigned section while the other team worked 30 miles or so ahead of them. When the first team worked up to the next regiment's road, they would "leap ahead" and start again on the next stretch of road. During the spring and summer months, daylight could last up to 20 hours, with twilight for the remaining four, allowing construction crews to work three shifts of eight hours each around the clock. Within two months, the U.S. Army Corps of Engineers completed 95 miles of the 1,650-mile pioneer road.

Crews worked from both the northern and southern ends of the road, with plans to meet in the middle. The northern point began in Delta Junction, Alaska, southeast of Fairbanks, and the southern end was in Dawson Creek, near the British Columbia-Alberta border. At the northern end, the 18th Regiment reached Whitehorse on April 29, 1942. The 93rd and 340th Regiments remained in Skagway to wait for their equipment, due to arrive in June. Once equipped, the 93rd moved to Carcross, Yukon, to start construction of a section to Teslin Lake. At the same time, the 340th went to Teslin Lake to begin work on the road south to Watson Lake. Also in June, another African American regiment, the 97th, moved from Valdez, Alaska, over the Richardson Highway to Slana, Alaska. There they worked on the Alaskan end of the highway while the 18th Regiment built the road through the Yukon north of Whitehorse.

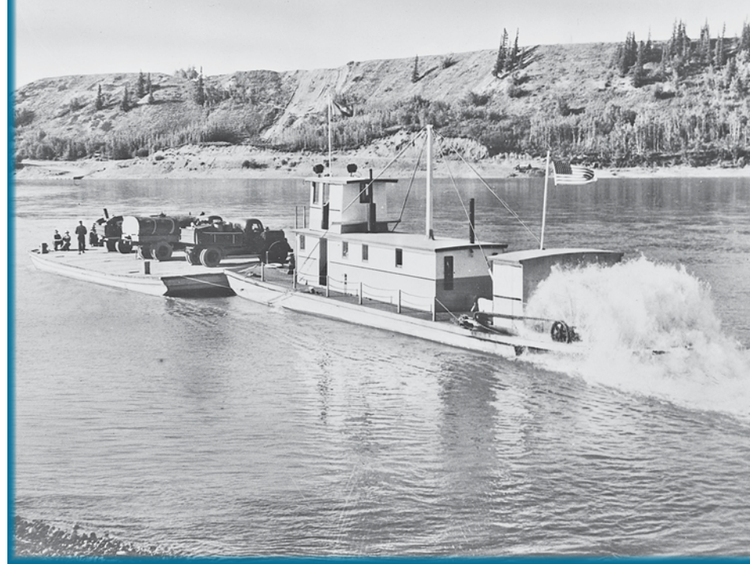
At the southern end, the 35th Regiment was the first to reach Dawson Creek and proceeded to Fort Nelson to begin work on the road to Watson Lake. At the end of April 1942, the 341st Regiment arrived at Dawson Creek to work on the highway between Fort St. John and Fort Nelson. The third regiment, the 95th, reached Dawson Creek in June 1942 and followed the 341st and 35th Regiments, improving pioneer roads, installing culverts, and building bridges. The U.S. Army Corps of Engineers sped up its progress during the month of June, building 265 miles of the highway in just one month. Additionally, 133 major bridges and 8,000 culverts were added, thanks to makeshift sawmills built along riverbanks.

Truck being removed from a river during highway construction, c. 1942. *Courtesy of the Yukon Archives, Robert Hays Fonds, #5689*

A SHORT SUPPLY OF EQUIPMENT

The regiments often struggled with a short supply of equipment, leading soldiers to couple brute force with creative solutions to complete the highway. In fact, the 93rd and 97th Regiments lacked any heavy equipment. Senior commanders believed that black soldiers were unfit to operate heavy machinery, so instead they were given handsaws, hand axes, picks, and shovels. When they were issued bulldozers, it was often the last stop for the

A section of road being filled and graded, 1942. *Yukon Archives, U.S. National Archives and Records Administration Collection, 87/28 #28, PHO 325*



Supplies for building the Alcan Highway transported by stern-wheeler, Edmonton vicinity, 1942. *Courtesy of the U.S. Library of Congress Prints and Photographs Office of War Information*

Trucks and supplies coming in by flatcar for the construction of the Alcan Highway, 1942. *Courtesy of the U.S. Library of Congress Prints and Photographs Office of War Information*

Bridge for the highway construction built over a tributary of the Peace River, 1942. *Courtesy of the U.S. Library of Congress Prints and Photographs Office of War Information*

Opening ceremonies of the highway at Soldiers' Summit, 1942. *Courtesy of the Office of History, Headquarters, U.S. Army Corps of Engineers*

earthmovers before the scrapheap. Although given poorer quality materials and tools, the 93rd, 95th, and 97th exceeded expectations and completed their sections of the highway faster than previously anticipated.

White regiments were typically equipped with CAT D-7s, D-8s, Dodge and GMC dump trucks, various jeeps and crawler tractors like the D-4, and Letourneau Carryall scrapers to assist in grading and dirt-moving operations.

BRIDGES AND PONTOON CONSTRUCTION

Although the War Department planned for permanent structures in its original directive, the Army built several temporary structures such as bridges and pontoons as timesaving measures to expedite construction. The usual placid appearance of some rivers such as the Peace, Tanana, and Liard Rivers belied their ability to quickly rise and flood. Streams like the Duke, Donjek, Robertson, White, and Johnson morphed from trickling currents into full torrents within hours. Though standardized designs were prefabricated to save time, some bridges required additional engineering to be both high and strong enough to allow flash floods and ice to pass.

After the spring thaw in 1942, the 73rd and 74th Engineer Light Pontoon Companies began constructing temporary pontoon bridges to help transport necessary heavy equipment. Soldiers cut down local timber and finished the wood on portable sawmills. Once the bridges were standing, they were still susceptible to damage from high water levels and frost. The Army averted damage by greasing pilings and wrapping them in tarpaper to prevent frost heaving or soil fluctuations. The U.S. Army Corps of Engineers' seasonal bridges served as temporary solutions, with the Public Roads Administration eventually constructing more structurally sound bridges along the entire alignment using permanent timber, concrete, or steel materials.

CONTACT CREEK AND SOLDIER'S SUMMIT

With the completion of the road in sight, the seven U.S. Army regiments, stationed at various points, moved either north from Dawson Creek, south from Delta Junction in Alaska, east and west from Whitehorse, and east from Teslin toward Watson Lake to complete the highway. Regiments met up in several places, most notably Contact Creek where northbound soldiers of the 35th Regiment met the members of the 340th at milepost 585. Other points of contact included Beaver Creek near the Alaska-Yukon border where the 97th and the 18th Engineers met. Finally, after months of hard labor, the pioneer road was completed on October 28, 1942.

The opening ceremonies of the pioneer road took place at a scenic overlook, Soldier's Summit (milepost 1061), on November 20, 1942, a mere 8 months and 12 days after construction began. Two African American soldiers and two white soldiers held a ceremonial ribbon, cut by Ian Mackenzie, the Canadian Minister of Health, and E.L. Bartlett, Secretary of the Alaska Territory. A U.S. Army brass band played both U.S. and Canadian national anthems and a military truck convoy ran from Whitehorse to Fairbanks to commemorate the opening of the route. Today, the trailhead to Soldier's Summit is located within the Kluane National Park and Reserve and the traditional territory of Champagne and Aishihik, Kluane and White River First Nations. The trailhead offers a unique vantage point where visitors can see four different versions of the Alaska Highway: the original pioneer road, the military road in place by the 1942 opening, the re-routed highway along Kluane Lake, and the new Shawak Project highway completed in 2008.

PUBLIC ROADS ADMINISTRATION IMPROVEMENTS TO THE PIONEER ROAD

The agreement between the U.S. and Canada stipulated that the U.S. would build an international highway across Canadian territory "to a standard sufficient only for the supply of troops engaged in the work." The road was initially built to meet minimum military standards for convoys to navigate

Opening ceremonies of the highway at Soldiers' Summit, 1942. *Courtesy of the U.S. Library of Congress Prints and Photographs Office of War Information*

Army staff car driving along the Alcan Highway, 1942. *Courtesy of the U.S. Library of Congress Prints and Photographs Office of War Information*

Trucks loading up at the gravel dump. Most gravel used for surfacing was obtained from glacial deposits, 1942. *Courtesy of the U.S. Library of Congress Prints and Photographs Office of War Information*

Dump trucks lined along the road with gravel to fill in the road along the highway route, 1942. *Courtesy of the U.S. Library of Congress Prints and Photographs Office of War Information*

Handover ceremony of the control of the Alaska Highway, 1966. *Courtesy of the Yukon Archives, Geoffrey Bidlake Collection*

from Alaska to the continental U.S. The agreement also stated that the highway would be upgraded to meet civilian highway standards.

In 1943, the Public Roads Administration rebuilt the road and turned it into a two-lane, gravel highway, and, although the task was easier than the pioneer road construction, it faced problems with drainage, washouts, and permafrost. The Administration retraced the U.S. Army Corps of Engineers' pioneer road, but relocated portions of the route to more permanent ground to meet civilian standards. Other tasks included widening the road, installing concrete culverts, and replacing most of the wooden bridges with steel ones. To complete these final tasks, the Public Roads Administration hired several large U.S. and Canadian construction firms such as Dowell Construction, Okes Construction, Lytle and Green Construction, W. Green Co., and R. Melville Smith Co. At its peak, the Administration managed 81 private contractors working on the Alaska Highway with a total labor force of 15,900 men. The number of workers included 10,400 U.S. contracted employees, 3,700 Canadian contracted workers, and 1,800 Public Roads Administration employees.

Due to the scope of the Public Roads Administration task, workers were provided with semi-permanent housing and camp facilities in either headquarters or construction camps. Headquarters camps were few and far between, and the only Canadian headquarters was located in Whitehorse. These camps accommodated up to 1,000 personnel and included recreation halls, medical facilities, and communications services. On the other hand, construction camps were located every 9 to 15 miles along the Alaska Highway and housed between 6 to 12 engineers and 100 to 200 construction workers. These camps typically included barracks, offices, one large kitchen and combined mess hall, a field shop, and a storage warehouse.

Months after the end of the war, on April 1, 1946, the Canadian Department of Public Works assumed responsibility for the Canadian portion of the Alaska Highway. Canada paid the U.S. for the cost of the airfields and flight strips as well as buildings, telephone systems, and other assets along the Canadian section of the highway, but not for the highway construction itself. The highway opened to limited civilian traffic in 1948. In 1966, nearly twenty years after the war, a second handover ceremony took place, with two cranes forming an arch to frame a band dressed in red uniforms. Over the following decades, the department launched a substantial plan, targeting sections of the Alaska Highway for improvements. Some of the funding for paving came from the U.S. government via a 1977 agreement. Today, responsibility for the Canadian portion of the highway is shared by the Province of British Columbia, the Government of Canada, and the Yukon.

THE HIGHWAY'S IMPACT ON ALASKA NATIVE AND FIRST NATIONS OF CANADA COMMUNITIES

Following the war, transportation, communications, and American cultural influences expanded north, connecting northern rural communities to the continental U.S. The Alaska Highway increased access to the northern landscape, which in turn improved health care, transportation, and telecommunications; imported ideas and technology; and facilitated the development of more mining and tourist-related industries. Modern elders from Alaska Native and First Nations communities consider World War II a major turning point as tribal communities moved further away from traditional rural lifestyles toward modern culture. While the construction of the highway offered new opportunities for paid labor for indigenous communities, it also led to some upheaval from the loss of hunting, trapping, and traditional subsistence opportunities.

The scale and impact of the U.S. involvement in Canada and Alaska during World War II was vast. In Canada, the U.S. Army held large concentrations of male military personnel in the northwest, which naturally affected social and gender dynamics for the First Nations population. Man camps across the border in Alaska had a similar effect. The highway altered the Native-white population balance, affected Native employment patterns and cash income, and facilitated the expansion of prostitution and petty crime.

Initially, some First Nations and Alaska Native people benefited from wage employment brought by highway construction, including logging, general construction work, and guiding U.S. Army surveyors and troops. Women earned money doing laundry, cleaning maintenance camps, and sewing mukluks, jackets, and mitts to sell to construction workers. However, most of the jobs held by Native

Army trucks along the Alcan Highway competed with local dogsled transportation, 1942. *Courtesy of the U.S. Library of Congress Prints and Photographs Office of War Information*

A First Nations family, 1937. *Courtesy of Yukon Archives, Yukon Collection*

community members in 1942 and 1943 were short-term, and, once the construction boom subsided, many lost work. Additionally, with the introduction of the highway, riverboat transportation declined, leading to a loss of employment as pilots, deckhands, and cooks.

Local native communities were altered as indigenous men left their communities to seek wage work in new economic centers along the Alaska Highway. In Canada, population numbers dwindled at the traditional native centers of Hutshi, Aishihik, Kloo Lake, and river communities such as Upper Laberge, Lower Laberge, Big Salmon, Little Salmon, and Fort Selkirk. The shifting populations also led to the development of new permanent villages such as Watson Lake, Haines Junction, Beaver Creek, and Pelly Crossing, and the growth of older villages such as Teslin, Carmacks, and Burwash Landing.

> **Before the highway came and split us all in different ways, we used to feed ourselves good from this country.**
>
> – Elderly Teslin native. Courtesy of Julie Cruikshank, *The Gravel Magnet: Some Social Impacts of the Alaska Highway on Yukon Indians* (1985)

The greatest impact of the highway was the abrupt loss of isolation that had insulated Alaska Native and First Nation communities in previous decades. In particular, First Nation citizens experienced assaults to their culture, economic security, beliefs, and language because of the influx of newcomers, new game laws, poor policing, and loss of forests. Additionally, infectious diseases and epidemics such as influenza, whooping cough, dysentery, and tuberculosis frequently spread to indigenous populations from military personnel.

Although the U.S. government was cautious in negotiating formal diplomatic agreements for the control of its personnel, the arrangements did not always anticipate social, sexual, and racial impacts. The needs of indigenous peoples were often neglected due to the exigencies of wartime. Social structures suffered severe dislocation because of the reorientation of power and command systems around military personnel. Military units occupying Native lands were generally ordered to stay away from indigenous populations, but economic realities, curiosity, and a lack of round-the-clock surveillance resulted in interaction. For example, photographic records show that the 388th Regiment working on the Canol Pipeline in Yukon frequently encountered Native women at trading posts with whom they traded in their military-issued clothing for warmer, traditional Native mukluks, mitts, and parkas. These interactions and relationships, whether by choice or coercion, occurred through employment, personal relationships, business transactions, and, at times, illicit activities.

Dumping mud into the side of the highway and widening the road along the Alcan Highway, 1942. *Courtesy of the U.S. Library of Congress Prints and Photographs Office of War Information*

American anthropologist John Honigmann observed these relationships along the Alaska Highway in 1944 and 1945 when he lived as a researcher in Lower Post, a primarily Kaska Dena community near the Yukon-British Columbia border. While studying language and cultural practices, he also kept notes about the behavior of military and civilian personnel and the consequences of economic dislocation, poor policing, and alcoholism on the community. These observations were echoed by local stories and oral histories from community members. For example, Elijah Smith, a member of the Champagne and Aishihik band in Yukon and a celebrated leader and parliamentarian, returned from fighting in Europe during World War II and noted the ways his community was negatively influenced by alcohol, flu epidemics, and, most shocking, the looting of trap line cabins.

Several native communities were greatly altered by the presence of and interactions with soldiers. For example, in 1940, the U.S. military came to an area occupied by Northway tribal members to construct an airfield for the Northwest Staging Route. Despite the fact that Native members helped clear brush for the project, the location was planned at the site of a Northway cemetery. Graves were dug up and remains burned at the edge of the constructed airfield. Shortly thereafter, the highway was under construction and once again came through the Northway lands. In some cases, Alaska Native and First Nation communities were relocated from their ancestral lands, some by choice and others by force. When the military left an area, it would often destroy any remaining food in accordance with protocol rather than give to the Alaska Natives or First Nation members, confounding many hungry Native communities. Also, several sites were abandoned with trash and waste left behind.

The construction of the highway also affected Native reliance on local wildlife. The new travel routes, combined with low fur prices and lack of seasonal work in highway communities, increased pressure on wildlife. These changes limited Native families' access to traditional wildlife resources, and, by the late 1940s, only a few Natives spent entire winters on trap lines or engaged in extensive summer meat hunts. As a result, most Native men turned to other forms of labor, such as seasonal work, often at low wages.

CONCLUSION

The Alaska Highway is not just a road but an engineering marvel of the twentieth century. The planners, surveyors, engineers, and soldiers performed a nearly impossible task through the northern wilderness that defied expectations. The northern climate served as a brutal backdrop for the construction, making their work even more remarkable. Planners and workers faced bitter cold, wavering permafrost conditions, and logistics nightmares as they planned for and forged the highway.

The project was completed in under eight months, and, at its conclusion, spanned 1,685 miles between Dawson Creek to Delta Junction. The highway was completed by the hands of 10,670 engineers, 41 American and 13 Canadian contractors, over 6,000 civilians, and many Alaska Native and First Nation members who contributed to the logging, guiding, and building processes.

The highway was an engineering sensation that not only set a new standard for highway construction, but was likened to the scale and difficulty of the construction of the Panama Canal. The highway also provided increased accessibility for interior communities (including Alaska Native and First Nation members) and opened up these regions to wider influences. Finally, in conjunction with other World War II-era projects, the highway provided proof of the value of desegregation in the U.S. military.

Postcard of Suicide Hill.
Courtesy of Fort St. John North Peace Museum I986.27.06

The Alaska Highway has been in continuous operation since 1942 and remains a vital artery for all types of traffic, including business access, logging, oil and gas, off-road mining, and tourism. The highway opened for unrestricted access in 1948, and motels, gas stations, and sites of interest quickly sprang up alongside it.

The wilderness that engineers and soldiers trudged through in frigid temperatures in the 1940s is now considered a "scenic drive" that travelers boast of completing in its entirety. What these men toiled after, tourists now enjoy from the safety of their cars. As Wally Hidinger, Yukon's Director of Transportation Engineering stated, "We still get people showing up with 15 jerrycans and 9 spare tires on the roof rack. You just don't need it. You can drive with no trouble at all, summer and winter."

The first truck to go over the corduroy road on the highway was a U.S. Army Jeep, 1942. *Courtesy of the U.S. Library of Congress Prints and Photographs Office of War Information*

SELECTED BIBLIOGRAPHY

Brebner, Phyllis Lee. *The Alaska Highway: A Personal and Historical Account of the Building of the Alaska Highway.* Ontario: The Boston Mills Press, 1985.

Bucksar, Richard G. *The Alaska Highway: Background to Decision.* University of Calgary, 1968.

Chandonnet, Fern, Ed. *Alaska at War, 1941-1945: The Forgotten War.* Fairbanks: University of Alaska Press, 2008.

Christy, Jim. "Rough Road to the North." Doubleday and Company, 1980.

Coates, Ken. *The Alaska Highway in World War II.* Norman: University of Oklahoma Press, 1992.

———. *The Alaska Highway Papers of the 40th Anniversary Symposium.* Vancouver: University of British Columbia Press, 1985.

———. *Best Left as Indians: Native-White Relations in the Yukon Territory, 1840-1973.* McGill-Queen's University Press. 1991.

———. *North to Alaska: Fifty Years on the World's Most Remarkable Highway.* Fairbanks: University of Alaska Press, 1992.

Cole, Terrence, Jane G. Haigh, Lael Morgan, and William E. Simeone. *Alaska or Bust: The Promise of the Road North.* University of Alaska Museum, 1992.

Cruikshank, Julie. "The Gravel Magnet: Some Social Impacts of the Alaska Highway on Yukon Indians." Vancouver: University of British Columbia Press, 1985.

———. *Life Lived Like a Story: Life Stories of Three Yukon Elders.* Lincoln and London: University of Nebraska Press, 1990.

Davignon, Ellen. "The Cinnamon Mine: Memories of an Alaska Highway Childhood." Studio North Ltd. Whitehorse, Yukon. 1988.

Dean Cornelia. "Many Wonders (but Few Amenities) on a Legendary Highway." *The New York Times.* 23 July 2012.

Griggs, William E. *The World War II Black Regiment That Built the Alaska Military Highway: A Photographic History.* Jackson: University Press of Mississippi, 2002.

Haigh, Jane. *The Alaska Highway: A Historic Photographic Journey.* Wolf Creek Books, Canada, 2001.

Harp, Elmer, Jr. "North to the Yukon Territory via the Alcan Highway in 1948: Field Notes of the Andover-Harvard Expedition." *Occasional Papers in Archaeology*, No. 14. Yukon Tourism and Culture, 2005.

Harris, Julie. "The Alaska Highway Corridor: Notes on the Indigenous Geography of a Canada at War." *Northern Public Affairs.* 6 April 2016. Accessed 2 November 2018. http://www.northernpublicaffairs.ca/index/the-alaska-highway-corridor-notes-on-the-indigenous-geography-of-a-canada-at-war/.

Lothain, W.F. *Yukon Territory: A Brief Description of its History, Administration, Resources, and Development.* Ottawa: Bureau of Northwest Territories and Yukon Affairs Lands, Parks and Forest Branch, 1947.

Lundberg, Murray. "Alaska Highway Chronology." Explore North Blog. 2018. Accessed 29 October 2018. http://www.explorenorth.com/alaska_highway/alaska_hwy-chronology.html.

McClellan, Catharine. *My Old People Say: An Ethnographic Survey of Southern Yukon Territory.* Hull, Quebec: Canadian Museum of Civilization, 2001.

———. *Part of the Land, Part of the Water: A History of the Yukon Indians.* Vancouver/Toronto: Douglas and McIntyre, 1987.

McClure, Christine and Dennis McClure. *We Fought the Road.* Fairbanks: Epicenter Press, Inc. 2017.

Mishler, Craig and William E. Simeone. *Tanana and Chandalar: The Alaska Field Journals of Robert A. McKennan.* Fairbanks: University of Alaska Press, 2006.

Morrison, William R. and Kenneth Coates. *Working the North: Labor and the Northwest Defense Projects 1942-1946.* Fairbanks: University of Alaska Press, 1994.

Morritt, Hope. "Land of the Fireweed: A Young Woman's Story of the Alaska Highway Construction Days." Alaska Northwest Publishing Company, 1985.

Northway Village Council. "Northway Village Council." ND. Accessed 2 November 2018. http://www.northwayvillagecouncil.org/.

Public Broadcasting Service. "Harriman Expedition Retraced: A Century of Change." 2001. Accessed 29 October 2018. https://www.pbs.org/harriman/index.html.

Pierce, J. Kingston. *The Biggest and Hardest Job Since the Panama Canal.* American History, February 2001.

Remle, David. *Crooked Road: The Story of the Alaska Highway.* Fairbanks: McGraw Hill Company. 1976. Republished by UA Press September 2008.

Rodgers, J. David. "Construction of the Alcan Highway in 1942." Missouri University of Science and Technology.

Twitchell, Heath. *Northwest Epic: The Building of the Alaska Highway.* New York: St. Martin's Press, 1992

Virtue, John. *The Black Soldiers Who Built the Alaska Highway: A History of Four U.S. Army Regiments in the North, 1942-1943.* Jefferson: McFarland & Company, Inc., Publishers, 2013.

U.S. Army Corps of Engineers. "Historical Vignette 130 – Road to Alaska." November 2017. Accessed on 5 September 2018. https://www.usace.army.mil/Historical-Vignettes/Military-Construction-Combat/130-Alaska-Road/.

Yukon Archives. "The Alaska Highway: A Yukon Perspective." Accessed 29 October 2018. http://www.alaskahighwayarchives.ca/en/chap1/index.php.

———. "Building the Alaska Highway." Hidden History, Black History of the Yukon. 2007. Accessed 29 October 2018. http://www.tc.gov.yk.ca/archives/hiddenhistory/en/highway.html.

ARCHIVAL RECORDS

Alaska Highway Interpretive Centre

Alaska Historical Society

Alaska State Library-Historical Collections

Anchorage Museum at Rasmuson Center

Anchorage Museum of History and Art

Archives Canada

Beaver Creek Visitor's Centre

City of Edmonton Archives

Fort St. John North Peace Museum

Missouri University of Science and Technology

National Archives and Records Administration Records

National Archives Bureau of Public Roads

Office of History, Headquarters, U.S. Army Corps of Engineers

U.S. Army/University of Alaska Archives

U.S. Army Corps of Engineers

U.S. Library of Congress Prints and Photographs Office of War Information

University of Alaska Anchorage Consortium Library

University of Alaska Anchorage Archives

University of Alaska Fairbanks Archives

University of Alaska Museum of the North

Yukon Archives, Department of Defense Collection

Yukon Archives, Geoffrey Bidlake Collection

Yukon Archives, Robert Hays Fonds Collection

Yukon Archives, U.S. National Archives and Records Administration Collection

Yukon College

ACKNOWLEDGMENTS

Text by Desiree Valaderes and Alexandra Wallace. This publication was made possible through the support of U.S. Army Garrison Alaska, the Center for Environmental Management of Military Lands and others, including: Elizabeth Cook, Julie Esdale, and Amber Phillippe.

CULTURAL RESOURCES MANAGEMENT AT FORT WAINWRIGHT

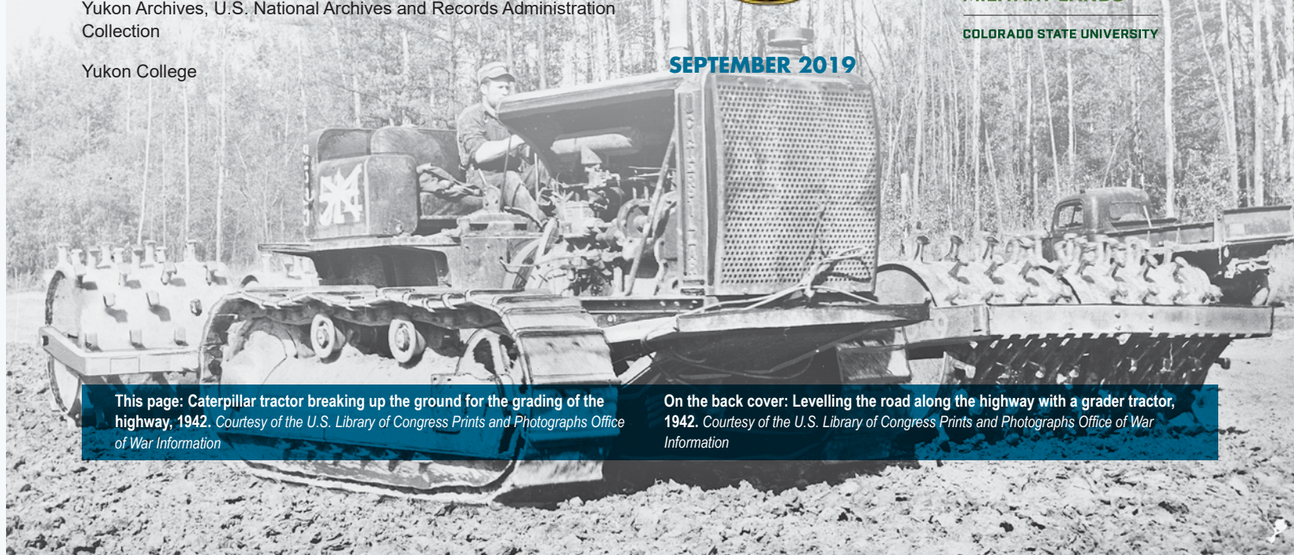
The Cultural Resources Management Program supports the Army's mission by inventorying and managing cultural resources in a manner that complies with federal law, minimizes impacts on the mission, supports sustainability of resources and infrastructure, and provides sound stewardship of properties eligible for the National Register of Historic Places.

The Cultural Resources Management Office is located within the Environmental Division, Building 3023. Copies of publications and additional information on the history of Fort Wainwright are available upon request. Business hours are Monday through Friday 7:30 a.m. to 4:30 p.m.

Directorate of Public Works, Environmental Division
ATTN: IMFW-PWE (Cultural Resources Manager)
1046 Marks Road, Fort Wainwright, Alaska 99703-4500
(907) 361-3002

Center for Environmental Management
MILITARY LANDS
COLORADO STATE UNIVERSITY

SEPTEMBER 2019



This page: Caterpillar tractor breaking up the ground for the grading of the highway, 1942. *Courtesy of the U.S. Library of Congress Prints and Photographs Office of War Information*

On the back cover: Levelling the road along the highway with a grader tractor, 1942. *Courtesy of the U.S. Library of Congress Prints and Photographs Office of War Information*