Cold Missions

The U.S. Army Air Forces and Ladd Field in World War II

The first Buzby Ranch, ca 1916. The Buzbys, as well as others, claimed homesteads in the area that became Ladd Field.UAF Archives,Vide Bartlett Collection, 1977-0089-00067.

On front cover; Photo: The Cold Weather Section Crew pose in front of their aircraft. Courtesy Randy Acord Ladd Field Decal. Courtesy Candy Waugaman.

The installation known today as Fort Wainwright entered the world stage during the 1940s because of a unique episode in American military history, one brought about largely by weather, geography and international politics.

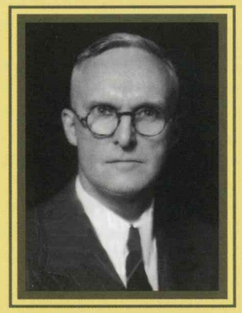
The post was Ladd Field, established in 1939 as a small cold weather test station. The airfield was named in recognition of Maj. Arthur K. Ladd, an Army Air Corps pilot who died in a crash in South Carolina in 1935. Cold weather testing remained an important element of Ladd Field operations throughout World War II, but another task conceived as an act of U.S. diplomacy soon emerged as the dominant mission.

The United States and the Soviet Union agreed that Ladd Field would be the transfer point for thousands of warplanes provided to the Russians to help win the fight against Hitler's Germany. The tale of how the airmen known later as the "Cold Nose Boys" developed the techniques needed for safe cold weather operations in the air and how an air bridge to Russia formed on the outskirts of Fairbanks is the story of Ladd Field during World War II.

The demands of wartime transformed Ladd Field into a major military installation that was home to thousands of troops, more than 700 buildings and connected in important ways to the war in the Pacific and in Europe.

Alaska's key position on the world map contributes to the importance today of Fort Wainwright. That was no less the case for Ladd Field, built not long after Brig. Gen. Billy Mitchell had warned Congress, "I believe, in the future, he who holds Alaska will hold the world and I think it is the most strategic place in the world." It was only as World War II was starting in Europe that a consensus developed that Mitchell was right about the strategic importance of Alaska.

Maj. Arthur K. Ladd. Courtesy Alaskan Air Command History Office, Elmendorf AFB.



Alaska's delegate to Congress, Anthony Dimond, 1932-1945. UAF Archives, 1992-90-17.

Brig. Gen. Billy Mitchell. UAF Archives, 1987-0149-00074.

"An awful lot to learn"

Lt. Col. Henry H. "Hap" Arnold accepts the key to the city of Fairbanks, Alaska. UAF Archives, 1987-0149-00044

For most of the 1930s, Alaska's nonvoting delegate to Congress, Anthony Dimond, had argued without success in Congress that spending money to fortify Pearl Harbor in Hawaii without taking any precautions to defend Alaska was like locking one door of a house and leaving another wide open. He said the Territory could be taken "almost overnight by a hostile force" and any effort to recapture Alaska would come at a cost of millions of dollars and thousands of lives.

But isolationism remained a formidable political force in America, and the nation was slow to recognize the threat from Germany and Japan or the way aviation had redefined notions of national security. This was not for lack of trying by men like Dimond and Lt. Col. Henry H. "Hap" Arnold, the officer who led a groundbreaking flight of 10 Army bombers to Alaska in 1934 during which he mapped airways to Alaska and scouted locations for bases.

Constructing Quartermaster's party arrive in Fairbanks. Left to right: Cadet John Lee, Jr., Maj. Newton Longfellow, Maj. Dale Gaffney, Col. John Lee, Maj. E. M. George, Capt. C.W. Gibson. UAF Archives, Kay Kennedy Aviation Collection, 1991-0098-00837

The future five-star general and commander of the Army Air Forces in World War II became one of the most outspoken proponents of the need to defend Alaska. After the 1934 flight, Arnold recommended that an air base be built at Fairbanks, as a supply point and for cold weather testing. Congress authorized a cold weather testing station but provided no money to build it.

In the meantime, the Army sent an official site selection party north in 1936 to pick a spot just to the east of Fairbanks along the Chena River. "We have no knowledge, of course, as to when the funds will be voted," the head of the delegation told the Fairbanks Chamber of Commerce. President Franklin Delano Roosevelt signed papers in March 1937 to withdraw nearly six square miles for the base, but Congress was still in no hurry to act.

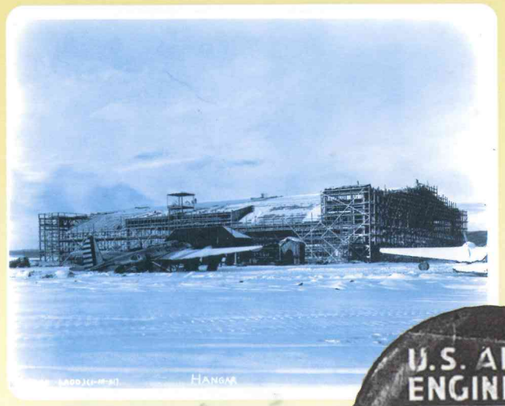
In March of 1937, Franklin D. Roosevelt signed his approval for a military base in Alaska. AP Photo

In testimony to Congress in 1939, Arnold was characteristically blunt about the danger of continued delay. By then, he was chief of the Army Air Corps and worried about holes in U.S. defenses. "We do not know anything about Alaska," he said. "Our people must be trained how to fly up there, about the weather and the kind of clothing they must have. How to start an engine when it's 40 degrees below zero. How to keep oil from congealing before you get it into the engine. What happens to a metal airplane when you bring it from this 40 below temperature and suddenly put it in a warm hangar. We have indications and every reason to believe that the rivets will pop right out. All these things we must go through, and there is going to be an awful lot to learn."

The news in early 1939 that Congress approved $4 million to start building a cold weather testing facility was hailed by the *Fairbanks Daily News-Miner* as the "first definite step by the United States for the establishment of an Army air unit and training of its personnel in the frigid zone. That it constitutes a departure, and a very necessary one, goes without saying."

That summer, a 17-man party arrived in Fairbanks in two military aircraft to start the survey work on the cold weather test station. At the Weeks Field airport, located near where Lathrop High School and the Noel Wien Library are found today, about 100 of the town's nearly 3,000 residents turned out to welcome the new arrivals. It was August 21, 1939, eleven days before Adolph Hitler invaded Poland and began World War II.

The Building *of* Ladd Field



Hangar One under construction, ca winter 1940-41. AAF photo, courtesy Eielson AFB and Steve Dennis.

In the fall of 1939, the Army acquired the land needed to build a four-mile spur of the Alaska Railroad to get heavy equipment to the site of what was soon to be named Ladd Field. Before the cold weather arrived, a construction crew poured a six-inch thick test slab of concrete for the airfield runway, measuring 60 feet by 120 feet. Since the same company also had the contract to pave the first street in Fairbanks the next year, it also did a test section of pavement downtown at the corner of Fifth Avenue and Cushman Street.

The Ladd Field ground work continued through the winter, an unusual step in a region where it was traditional for most outdoor work to cease during the coldest months. In April 1940, a shipload of construction materials made its way north, along with 15 enlisted men, an O-38 airplane, and Major Dale Gaffney, the first commander of Ladd Field. By the summer, up to 1,200 men were employed on the runway and the associated buildings. Gold mining had been the biggest source of employment in Fairbanks, but many workers left the big gold dredges to try their hand at construction work on Ladd Field. By July, foundations had been poured for 12 buildings and the 5,000-foot runway was more than half finished. The concrete slab for the runway was six inches thick, atop two feet of gravel. A lot of the work had to be done by hand, using heavily loaded wheelbarrows called "cement buggies."

In 1940, Ed Hinke was working in Juneau when the call went out across Alaska that Ladd Field needed workers. "I landed the hardest and the dirtiest job on the base," he said. "I was a cement dumper, one of a crew of two. We had to dump seven sacks of cement into the hopper every few minutes. Had to wear 'tin clothes,' goggles and respirator all the time in the hot Fairbanks summer."

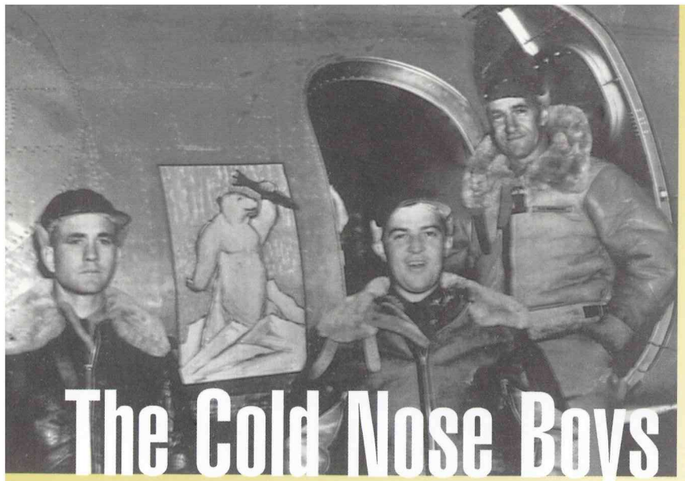
The construction of the air field created so many jobs that an observer wrote of Fairbanks that unemployed men gathered in herds on the street corners, but not for long: "Most of them will have jobs within a week or so and then another flock will flood into the city to be in their turn absorbed by the almost incredible activity of Fairbanks and the Fairbanks area."

With Hitler overrunning Europe, Arnold returned to Alaska in July 1940 to check on the status of the hurry-up military work in Anchorage and Fairbanks. In Anchorage, the major project was the construction of Elmendorf airfield within what became Fort Richardson, envisioned as the center of Alaska's defenses.

Speaking to the Fairbanks Chamber of Commerce just down the street from the new Lacey Street Theatre, which was showing "*Gone With The Wind*," Arnold shared his views on preparing the nation. "If we have an adequate defense in the air, there is less likelihood that we will be attacked. Air defense is national insurance. The recent wars have taught us one lesson which our people should never forget. That is, that the flying machine, one of the finest vessels of air commerce, can be turned into the deadliest weapon of war," Arnold said.

Arnold was impressed with the pace of work at Ladd and decided to move up the schedule by a year, figuring that the runway would be finished and the troops could be housed in temporary quarters that fall. The runway, dubbed the "largest slab in the Territory of Alaska" by a reporter, was completed in September about three months before the runway at Elmendorf Field in Anchorage was ready. Gaffney "christened" the Ladd runway on September 5, when he landed the O-38, the first Army Air Corps plane assigned to Alaska, on the runway that would see thousands of aircraft within a few years.

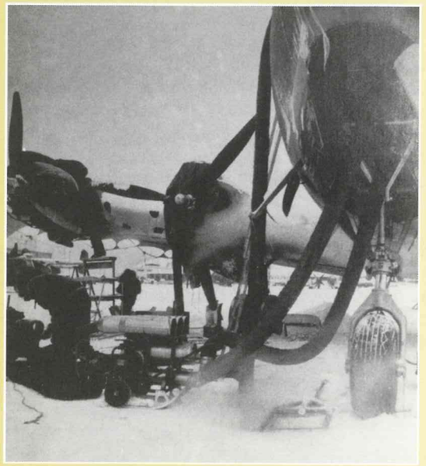
An aerial view of the Headquarters area in 1940. Hangar One is under construction in the foreground, while the foundation was being laid for the Air Corps Barracks and the BOQ was receiving finishing touches. AAF photo.



The Cold Nose Boys GET TO WORK

An early model Sikorsky helicopter nicknamed "the Arctic Jitterbug," was tested at Ladd Field in the winter of 1943-44, UAF Archives, 1999-204-82

Photo at left: Airmen of the cold weather test detachment, Ladd Field,1940. Courtesy of Elmendorf AFB History Office.



A C-54 gets a hot-air treatment before flying into the cold blue yonder. Courtesy Randy Acord.

The main road leading into Fort Wainwright is named for Brig. Gen. Dale V. Gaffney, who became known in some quarters as the "Screaming Eagle of the Yukon."

Gaffney, who arrived as a major at Ladd Field with the original survey crew and was closely connected to every stage of the field's development throughout the war, said the goal for the first winter of the detachment was to "Fly 'em and watch 'em." The pilots and other crew members would fly the planes and watch what happened, making adjustments and recommendations to deal with the cold.

In October, two B-17s arrived, and the Cold Weather Test Detachment (CWTD)"grew into its name," the *Fairbanks Daily News-Miner* said. "The mammoth sky destroyers are but the leadoff guinea pigs of a composite squadron from Uncle Sam's military menagerie." The planes had a logo showing a bear with its right paw extended, preparing to hurl a bomb, which prompted newspapers to coin the term "Polar Bear Squadron" and later the "Cold Nose Boys."

B-24 with engine heater (duct) at 35ºF below. Courtesy Randy Acord.

P-38 readied for flight. Courtesy Pioneer Air Museum.

Alaska Air Depot flight test Jeep in front of B-25 at Ladd Field. The B-25 had a 75mm cannon on the left lower nose. UAF Archives, 1987-0149-00039.

Cold Weather Test Detachment pilots. UAF Archives, Rex and Lillian Wood Collection, 2002-0164-00054.

The station had a roster of 14 officers and 200 enlisted men and a limited menagerie of two B-17s, two P-37s and one O-38. The B-17s undertook flights that ranged from photographic missions of central Alaska to a trip to Nome in November, returning with 2,000 pounds of fur mukluks and reindeer parkas to be tested by servicemen. The *Daily News-Miner* said that nearly everyone in Nome turned out to get a look at the plane, which returned to Fairbanks that night, landing by the light of flares.

But one of the P-37s and one of the B-17s did not even make it through the winter. A P-37 was damaged and out of commission soon after its arrival and one of the Flying Fortresses crashed while on a trip Outside, killing the crew of eight. The airmen were memorialized by the naming of roads on the new base after them, with most of the names still in use today—Freeman, Ketcham, Trainer, Whidden and Applegate.

The biggest challenges facing the Cold Weather Test Detachment appeared when the temperature dropped. Airplane heaters wouldn't work, wheels wouldn't turn, controls wouldn't budge, ice covered the insides of cockpit windshields, and brakes froze. "Planes and men at Ladd Field will get a real taste of the rigors of an Arctic winter this year, for hangars have not been completed and will not be ready until the next year, so the planes will be out in the open in temperatures ranging down to 50 degrees below zero. It's just plain hard work to service and fly a plane in temperatures like that," Gaffney said.

The wings are swept clear of snow on this C-46. Courtesy Pioneer Air Museum.

Cold Weather Test Detachment ground equipment test area, east side of Hangar One. Note C-13 battery carts and Herman-Nelson heaters. Temperature -35°F. AAF photo ca. 1944, courtesy Russ Sackett.

Chilly Billy, a B-17G, receives cold weather preparation for the arctic environment. Courtesy Randy Acord.

A B-24D with open bay doors awaits the loading of practice bombs that were delivered by sled. UAF Archives, 1987-0149-00035.

Testing more than airplanes

Sled dogs were used in cold weather testing. UAF Archives, Lulu Fairbanks Collection, 1968-0069-00604.

10th Rescue Squadron, dog team air drop flying in a C-47. UAF Archives, 1987-0149-00023.

On his first visit to Ladd in July 1940, Col., later Gen., Simon Bolivar Buckner Jr., the commander of all Army tactical forces in Alaska, talked about the various types of cold weather testing he'd like to see at the new station. He said that 40 dogs would be moved from Chilkoot Barracks to Fairbanks, adding that dog teams were important to help aviators stranded in out of the way places.

He had other exercises in mind as well, as 6,000 pairs of snowshoes had been requisitioned for the Alaska bases. "This seems to be a good snowshoe country, and we will use them extensively. Skis are harder to learn and will probably only have limited use," said Buckner, who was once described in print as being "hard as a hunk of pig iron and built like a stone lighthouse."

"Men will be sent out in the hills to camp in the snow," he said. "They will learn how to live in the cold and the snow. It is likely that they will bivouac in the mountains, and perhaps it will be arranged for two battalions to meet in the wilderness for maneuvers on snowshoes," said Buckner.

Finding the right clothing was an early challenge. The coats the mechanics were first given to wear at 40 below were bulky and inadequate, leaving the men to alternately sweat and freeze. They needed mobility, and they needed to keep warm while moving, a difficult combination that took time to achieve.

"Whenever we could, we went to the field and tested cold weather gear — from clothing to sleeping to cooking," said Ret. Col. Richard Dennison, a second lieutenant at the time. In the search for the right cold-weather clothes, one reporter wrote, the Army wanted garments that wouldn't stifle a pilot in the cockpit or give him instantaneous pneumonia if he found himself in nine inches of fresh snow with a northwest wind

One of the early coats worn by many of the Ladd Field soldiers was known as the "DVG," which stood for Dale V. Gaffney. "Everybody was issued one of those DVGs," said Bill Stroecker, a Fairbanksan who went into the Army in 1942. The sheepskin coats didn't work for air crews in cramped quarters, however, and Gaffney got involved in the development of down coats, which were more comfortable.

In 1942, Sir Hubert Wilkins, celebrated Arctic explorer (wearing the black tie), visited Ladd Field, Fairbanks, Alaska, to help solve some of the problems that arose in pushing Lend-Lease planes through to Soviet Union during one of the bitterest winters ever recorded in the sub-arctic Alaska. To this left stands Gen. Dale V. Gaffney wearing the sheep-lined coat that was named after him – the "DVG." UAF, Kay Kennedy Aviation Collection, 1991-0098-00854.

An important component to the emergency rations was the "can opener" (shown on the right) still in use today. CWTD Report 1942-43. AAF photo.

Lt. Marvin Walseth with C64 Norseman wearing a fur parka and mukluks, 1941. Courtesy Steve Dennis.

K-12 camera man testing his 75 lb camera from an aircraft. UAF Archives, 1987-0149-00021.

Test pilot Randy Acord said that one innovation that helped mechanics and pilots was a thin rayon glove, the only item he knew of that served its purpose in cold or hot weather. In Arizona, soldiers wore the gloves to keep from burning their fingers on hot metal. At Ladd Field, the soldiers wore them inside of big mittens. They could take their hands out of the mittens, tighten a nut, and put their hands back in the mittens without having their fingers freeze to the metal.

None of the airplanes had good heaters for severe weather. One of the creative solutions devised to try to make flying a little more comfortable was a garment dubbed "electric underwear" by the newspapers that could be plugged in while in flight. There were small coils woven into a garment, which was plugged in, as a reporter put it, like an "electric bottle warmer at home." Gaffney flew one of the B-17s for seven-and-a-half hours in the hot suit.

The transfer of the dogs that Buckner had talked about the previous summer took place, but with a strange twist. The 43 dogs and ten men left Haines on January 24, 1941, for a 600-mile trip to Fairbanks. They carried radios and had food and other supplies dropped by air. The expedition got hung up in deep snow near Burwash Landing after a month on the trail and a B-17 from Ladd made an emergency flight to rescue the inexperienced dog drivers and their teams, many of which were reported to be sick. The plane landed on the ice of Kluane Lake on wheels, a rescue flight to retrieve the dogs and mushers that was said to be a first in military aviation.

Fairbanks *and the military*

1920 *through* 1945

1920

Gen. Billy Mitchell sends the "Black Wolf Squadron" from New York to Nome, a 9,000-mile round-trip that establishes aviation in Alaska.

1922

Alaska Agricultural College & School of Mines opens in Fairbanks.

1923

Alaska Railroad completed.

President Harding visits Alaska to drive golden spike. Harding dies while on return to Washington, D.C.

1924

Carl "Ben" Eielson flies first air mail flights in Alaska.

Noel Wien makes the first flight from Anchorage to Fairbanks.

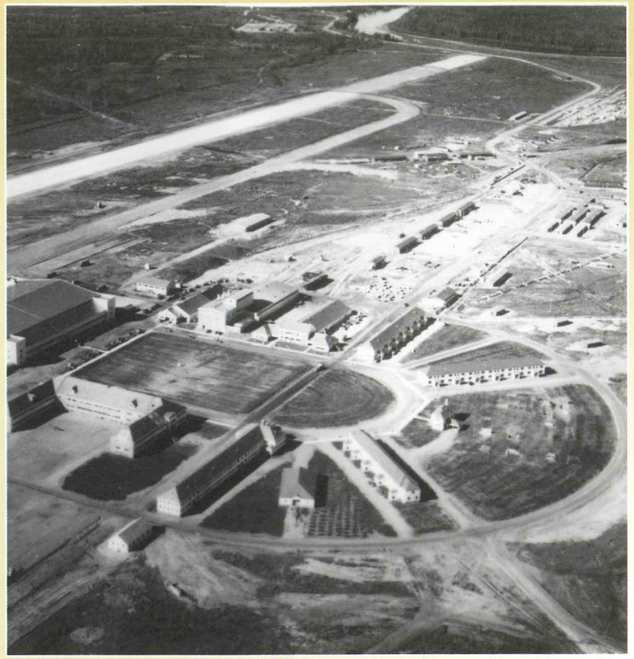
Douglas World Cruisers stop in Alaska on first flight around the world.

1925

Emergency dog team relay from Nenana to Nome carries diphtheria serum to Nome to combat health crisis.

Above and below ground at Ladd

By the start of 1941, the construction work was about 80 percent done, with the power plant already providing steam to heat several of the permanent buildings. The buildings were laid out in a horseshoe pattern on the north side of the runway, with the massive Hangar One dominating the scene next to the airfield. Along the horseshoe, there were quarters for enlisted men and officers, a hospital, theater, power plant, and the commander's house.



North Post and runway, ca. 1942. Clockwise around parade ground from Hangar One on the left: Service club/bus station, power plant, quartermaster, 2 NCO quarters, commander's house, officers' quarters, garage, BOQ barracks/BX/hospital. Rail facilities, access road and warehouses are visible in upper right. Courtesy Randy Acord.

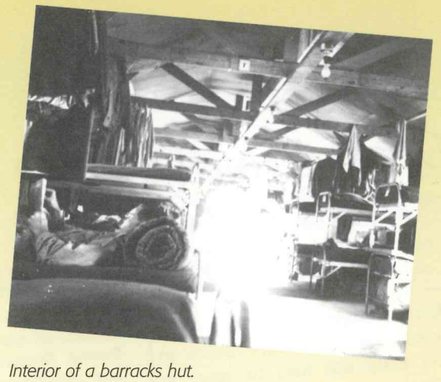
The design and construction of this portion of the field occurred before the demands of war created an emergency situation in which appearances were expendable and utility and speed were all that mattered. Considerable planning is evident in the design of the original post, complying with an early pledge that the field would not be built in a haphazard manner.

The field was laid out in a symmetrical pattern with Hangar One anchoring the design, just to the north of the airfield. The commander's house was at the apex of the horseshoe, which became a parade ground. Buildings along the sides of the horseshoe include a power plant, office/warehouse, quarters for married officers, NCOs and bachelor officers. A U-shaped building on the east side served as a barracks, hospital, PX, and theater. This building became headquarters for Ladd Air Force Base in about 1954 and retained that function after the base became Fort Wainwright in 1961.

Hangar One at Ladd Field. UAF Archives, Cecil H. Kornegay Collection, 1999-0204-00045.

The buildings featured modern utilities, no easy task at a time when frozen water and sewer lines were a fact of life in the Fairbanks area. The solution the Army came up with at Ladd Field was to enclose the electric, water, steam, sewer, and phone lines in underground tunnels about six feet wide and eight feet high. The tunnels had connecting branches to all of the buildings along the quadrangle.

One of the most talked about features of Ladd Field was that these utility tunnels did double duty as hallways, making it possible to travel among the major buildings of the original field without going outside. "In 40 below, we walked in comfort," said enlisted man Bob Redding. The utilidor system still exists, providing a convenient way to maintain utility lines.



Interior of a barracks hut. Zenas Richards Collection, UAA Archives.

The heat escaping from the utilidor had the added benefit of keeping the sidewalks above ground warm. That meant there was no snow to shovel, and the sidewalks were clear for those who preferred walking outside.

During the war, Ladd was regarded as the most comfortable and best-equipped base in Alaska, historian and retired military intelligence officer Otis Hays Jr. has written, "with heated pedestrian tunnels linking the buildings and with Hangar One as its most visible landmark. The Soviets who later flew to and from the Fairbanks base called it a 'rest camp.'"

Hangar One was the most prominent architectural feature of the Ladd Field garrison. It dwarfed any other building ever attempted up to that time in Interior Alaska. The open floor of the hangar was 268 feet by 263 feet, nearly enough to hold a football field in either direction. The hangar had large two-story wings on the north and south sides. It had a concrete foundation with a wood truss roof topped by copper sheathing. The wings to the north and south side contained the headquarters staff, the post commander's staff, and many other administrative and operational functions.

In addition to uniformed personnel, Ladd relied on a large civilian workforce. By mid-1944, there were at least 1,700 civilians on the base payroll and others working for contractors. Key civilians were recognized for their efforts in 1944 when more than 200 Ladd employees received the Asiatic-Pacific ribbon for civilian service.

Left to right; Commander's Quarters, WAC Barracks, Officers Family Quarters, BOQ (Bachelor Office Quarters.). UAF Archives, Cecil H. Kornegay Collection, 1999-204-112

East elevation of combined Air Corps barracks, theater, PX, hospital. ca. 1943. AAF photo.

Quartermaster building and the adjacent power plant. AAF photo.

Ladd Field Fire House (and Rescue Unit), north side of Quartermaster building. UAF Archives, Cecil H. Kornegay Collection, 1999-204-112

1929-1939

1929
Stock market crash in October helps trigger the Great Depression.

Carl "Ben" Eielson crashes off the Siberian coast in November, prompting international search. Army Air Corps had neither planes nor pilots to participate.

1931
Alaska governor suggests federal government build more Alaska airfields.

1934
Territorial delegate Anthony Dimond introduces first bill to build an air base and defend Alaska.

Then Lt. Col. Henry "Hap" Arnold leads a flight of 10 B-10s from Washington, D.C. to Alaska and back. Arnold recommends building of Fairbanks air base.

1935
Congress approves idea of Alaska bases, but provides no money.

First Juneau to Fairbanks flight.

Will Rogers and Wiley Post die in crash on Alaska's Arctic Slope.

1936
Army party selects site for Fairbanks base just east of town along Chena River.

1937
President Franklin D. Roosevelt withdraws six square miles for Fairbanks base.

1938
Civil Aviation Administration begins five-year campaign to build civilian airfields. At the time, there were established airports at Fairbanks, Juneau, Anchorage and Nome.

1939
$4 million approved for cold weather test station.

August 1939
Surveyors and engineers start Ladd Field work.

September 1939
World War II begins when Germany invades Poland.

National Archives and Records Administratoin Washington DC

Fairbanks Welcomes the Military

From the start, the people of Fairbanks were enthusiastic about the building of Ladd Field, not only because of the economic boost it brought to the town, but also because the townsfolk were a friendly and welcoming sort. In the early months, eight officers had their families with them in Fairbanks and found themselves invited to a variety of social activities.

Gaffney opened the gates to the townspeople on April 5,1941, in observance of Army Day. An hour-long air show featured four planes from Fairbanks and nine from Anchorage. Cameras were prohibited, and members of the public were warned to stay in designated areas. About 2,500 of the town's 3,500 residents attended. Gaffney flew the B-17 as part of the exhibition.

"Visitors were amazed to see that the place that was a wood wilderness a year ago has been transformed into a magnificent establishment, not yet complete, but sufficiently along to convince the most skeptical that Uncle Sam's defensive forces are here in a mighty substantial way," the *News-Miner* editorialized.

Great Crowd Visits Ladd Field as Guests of Army And Workers at Dance

Until a larger affair comes along, Saturday night's hangar dance at Ladd Field will hold its place in history as the greatest crowd ever assembled under one roof in Interior Alaska and probably in the entire Territory.

According to figures compiled at the post, approximately 2,500 persons attended. Exact tabulations show that 1972 persons, 1622 from off the post, danced. The others came, looked, marveled and returned to their homes.

The dance was given by the U. S. Army Engineers, the Air Corps and the civilian employes working at Ladd Field

broadcast of music.

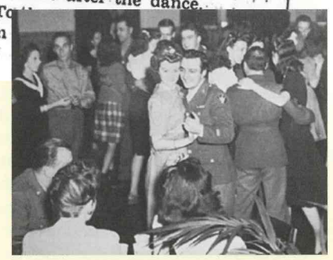
Promp Departure Appreciated

Last strains of the music were heard promptly at 1 a. m., and by 1:20 the post was cleared of civilians and civilian cars, of which there were 288 parked on and adjoining the hangar apron. In addition, many busloads of guests and dozens of taxi loads were taken away.

Officers of the post joined today in expressing their appreciation to the public for their careful following of regulations and for the quick departure after the dance.

To

'Em



In August 1941, a dance at Hangar One also drew about two out of three Fairbanks residents. The *News-Miner* said 1,972 people danced, making it the "greatest crowd ever assembled under one roof in Interior Alaska and probably in the entire territory." Within four months, the world would change so much that there would be no more time for community dances in Hangar One.

AMERICA ENTERS THE WAR

For a time, a single B-17 was the only plane left at the field. With the expansion of what would be known after June 20, 1941 as the Army Air Forces, aircraft were hard to come by throughout the military. There was also a continuing power struggle within the Army about where Ladd Field would fit into the chain of command, stemming from conflicting opinions about the relative value of the Cold Weather Test Detachment. Gen. Arnold remained a big proponent of Ladd, however, and at various times the field commander reported directly to him in Washington, D.C. Reporter William Gilman said of the underlying tension: "The CWTD became a dissident voice crying out in the wilderness which other army outfits would like to gag."

In the fall of 1941, the field had 520 men, but only 13 pilots, and Gaffney was concerned that it might not remain a cold weather testing station. The plan for the second year of cold weather testing was that two of every type of aircraft would be put to the test at Ladd Field, but growing world tensions, the shortage of aircraft and the events of December 7, 1941 disrupted everything.

On that Sunday morning, Augie Hiebert was at the transmitter of Fairbanks radio station KFAR. He was checking short wave stations when he picked up word from San Francisco that Pearl Harbor had been attacked. "I knew that the military had a very uncertain short wave system if any at all," Hiebert said. "So I called up Col. Gaffney, who was the military commander here.

JAPAN ATTACKS U. S.

EXTRA!!! Fairbanks Daily News-Miner EXTRA!!!

EDITORIAL

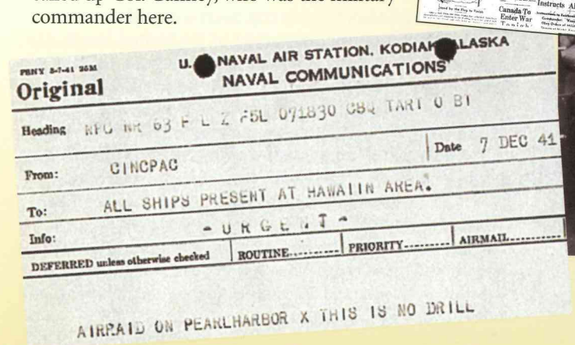
BRITAIN TO MAKE WAR ON JAPAN

NIPPON PLANES BOMB HUGE NAVY BASE AT PEARL HARBOR, HAWAII

Sit Tight and Cooperate Ladd Field Commander Instructs All Citizens

Mikado's Submarines Torpedo American Warships in Pacific

Canada To Enter War



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Original

U. NAVAL AIR STATION. KODIAK, ALASKA

NAVAL COMMUNICATIONS

Heading RPC NR 63 P L Z 75L 071830 CBA TART 0 BT

From: CINCPAC

Date 7 DEC 41

To: ALL SHIPS PRESENT AT HAWAIIN AREA.

Info: - U R G E N T -

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AIRRAID ON PEARLHARBOR X THIS IS NO DRILL

He was sort of a party guy; he had been up the night before. I got him out of bed and I asked him, 'Did you know there was a war on, Dale?"

Gaffney instantly put the base and community on alert. He advised residents of the community to stay off the phones, keep off the streets at night, obey military guards and prepare for a possible attack. He sent soldiers to temporarily guard the radio station, federal building, telegraph office and other key points before volunteers could be recruited.

Gaffney said he "had three jobs for every man" on Ladd Field and needed his men back. Later, Gaffney explained his belief that the Japanese would destroy Fairbanks if they thought it was necessary. "In such a case it is very logical that a squadron of Japanese bombing planes would be sent to destroy this area with little thought being given to the possibility of its returning," he said.

Outdoor lights were banned and plywood and drapes were placed over the windows of houses and offices. After December 7 all work at Ladd Field was conducted in a blackout.

Augie Hiebert and his dog Sparky at the transmitter of Fairbanks radio station KFAR. UAF Archives, 1959-0845-01052.

1940

April 1940
Maj. Dale Gaffney and others arrive to begin major construction of Ladd Field. Work force grows to 1,000 by summer.

May 1940
Hitler invades Belgium and Holland. Congress approves $12.8 million for Anchorage air base construction.

June 1940
France surrenders to Germany.

Construction begins on Elmendorf Field. First troops arrive in Anchorage.

July 1940
Col. Simon Bolivar Buckner Jr. arrives in Anchorage to command Alaska Defense Force.

August 1940
Buckner promoted to Brigadier General.

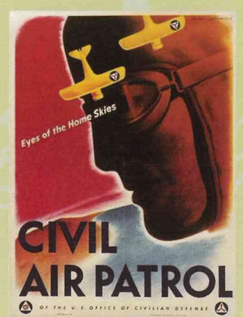
September 1940
Ladd Field runway completed. Cold Weather Experiment Station begins operation, ahead of schedule.

September 1940
Congress approves the first peacetime military draft in the nation's history because of worries about the war in Europe. Men ages 21-26 are required to register for military training.

October 1940
Churchill pledges that France will be liberated one day. U.S.-Canadian committee recommends series of military landing fields in Canada and Alaska.

November 1940
Anchorage Army installations named for Brig. Gen. Wilds Richardson and Capt. Hugh Elmendorf.

December 1940
New Fairbanks airfield named for Maj. Arthur Ladd, an Army pilot who died in South Carolina.



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'A testing hiatus'

Cold weather testing was temporarily stopped after the attack on Pearl Harbor while Ladd Field troops concentrated on preparing against air raids and sabotage. "As with America as a whole, the illusion of remoteness and isolation vanished with that terrible expectation of momentary enemy bombs and bayonets," a 1945 history of Ladd operations said.

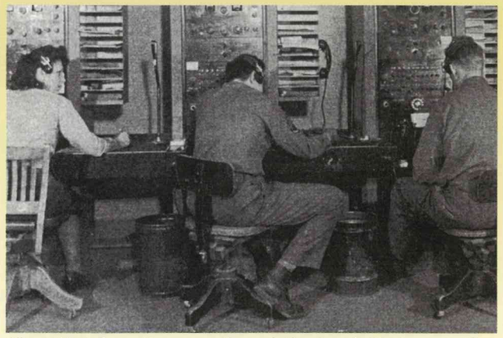
Fairbanks never became a target, but the Japanese bombed Dutch Harbor in June 1942 and occupied the islands of Attu and Kiska. Thousands died as U.S. forces battled to expel the Japanese in the Aleutian campaign which lasted 15 months. The bombing of Dutch Harbor led to the disbanding of the testing detachment, as all available aircraft were pressed into service for defending Alaska.

That summer, several officers and enlisted men from Ladd Field went on combat duty in the Aleutians. Maj. Jack Marks died when he was shot down, while Maj. Marvin Walseth died when the B-17 that had been at Ladd Field crashed because of bad weather during a reconnaissance mission over Kiska. Lt. Norman Nysteen also died in combat.

When the CWTD was disbanded, most of the detachment were sent to

This "Grizzly Bear" patch was in use by the Alaska Defense Command beginning in 1943.

Cold Weather Test Detachment (CWTD) Fighter section crew poses with P-47D, Ladd Field, ca 1944. Courtesy Pioneer Air Museum/Randy Acord.



All outside information came through the Army's Alaska Communication System, "Ladd Field Midnight Sun, Special Magazine Section."

Nome because some military planners expected it to be the next place attacked after Dutch Harbor. Civilian and military planes made 218 flights to Nome, moving troops and supplies into place for an attack that never happened.

The dissolution of the testing detachment didn't last long. Arnold, who remained its most influential advocate, saw to that. It was reactivated in July 1942 when many of its men were at Nome, in the Aleutians, and elsewhere. A unit history notes that opposition, which ranged from "passive resistance to marked antagonism," remained from those who just didn't see problems with flying in cold weather. To deal with those complaints, the Army brought dozens of laboratory scientists and factory representatives to Ladd to witness the tests and problems first-hand. It turned out to be a productive relationship. "We had the world of knowledge at our fingertips in the Cold Weather Test Detachment," test pilot Randy Acord said. "We had 45 of the top engineers from all the different major manufacturing companies in the United States. They were our advisers and watching everything we did. And we were running tests for them as well as the military, and we ended up solving an awful lot of cold weather mysteries, which was always an interesting thing to Gen. H.H. Arnold. The more cold weather problems we could eliminate, the happier he was."

In the winter of 1942–43, the detachment progressed from the pioneer stage to one of "stability and intensive scientific accomplishment," a unit history records, and began to provide critical knowledge about how to keep planes flying in the cold. Recommendations from the detachment for modifications found their way quickly to the production lines, and it wasn't long before all of the Army's planes could operate at 40 below zero.

The extensive testing continued until the end of the war. The concentration of officers in the detachment was such that the unit reportedly had the biggest payroll of any comparably sized organization in the armed forces. The work had its dangers, and during the course of the war, three dozen men from the detachment died, some in combat, others in accidents on the ground or in the air.

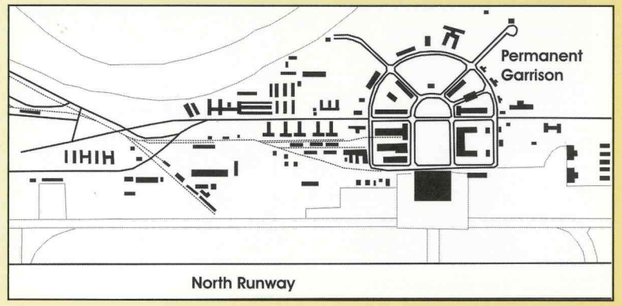
The program that had started with a small contingent in 1940 grew into a major testing program. By 1945, more than 700 military and civilian personnel tested 22 types of aircraft. In 1944, *North Star Magazine* wrote of the continuing struggle by the Cold Nose Boys to destroy cold weather Gremlins. "In that struggle, the Cold Weather Testing Detachment has played a leading and honorable role," it said.

As Alaska became a war zone, Ladd Field became more important militarily, as a vital link on the supply route in Alaska, both on the ground and in the air. Less than a year after the attack on Pearl Harbor, there were trucks hauling supplies along a fifteen hundred mile primitive road to Fairbanks. The Alaska Highway also helped open a new highway in the skies, which became vital for the war in Alaska and in Europe. The Air Transport Command ran the airfields along the rote to Alaska and also was responsible for a major wartime cargo operation and contracts with private air carriers to supply air transport services for the military.

The demands of wartime forced rapid expansion to handle new missions. Ladd Field became an important transportation hub for cargo needed in the Alaska theater, as well as for passengers to and from Alaska and for the Lend-Lease aircraft. In what amounted to a continual construction spree, workers expanded the runway by 4,000 feet, built a second runway to handle more planes, and added new warehouses, offices, and other buildings. Hundreds of temporary buildings, four Birchwood hangars, two Kodiak "T" hangars, housing for more than 4,500 troops, and other facilities also sprang into place during the war.

Above: A team of U.S. Army Engineers lay out the pioneer road – the road that became the Alaska Highway in 1942. UAFairbanks Archives, 1992-0077-00203.

Left: This commemorative stamp was issued in 1992 by the United States Post Office to honor the 50th anniversary of the construction of the Alaska Highway. Designed by Bryan Birdsall of Anchorage, Alaska, the first stamp designed by and Alaskan artist. It was issued on May 30, 1992, in Fairbanks Alaska.



Ladd Field Partial Plot Plan; Based on 1946 Plot Plan prepared by Office of the Engineer, Ladd Field, Alaska.

1941

January 1941
Albert Farr, who hitchhiked to Fairbanks the previous summer from Durango, Colorado, was the first Fairbanks enlistee at Ladd Field.

February 1941
First tactical air squadron arrives in Alaska, at Elmendorf. Alaska Defense Force redesignated Alaska Defense Command.

March 1941
Franklin D. Roosevelt signs Lend-Lease Act.

April 1941
Germans capture Belgrade.

May 1941
Reconnaissance made of sites for Aleutian airfields.

June 1941
Hitler attacks Soviet Union. Many aircraft destroyed.

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August 1941
Dance at Ladd Field's Hangar One draws largest crowd under one roof in Alaska.

September 1941
Alaska's National Guard placed on active duty.

Ladd Field has 520 men.

October 1941
U.S. extends Lend-Lease provisions, shipped by sea, to Soviet Union.

December 1941
Japanese attack Pearl Harbor. Alaska towns blacked out in fear of attack. Fort Richardson key Alaska military installation.

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